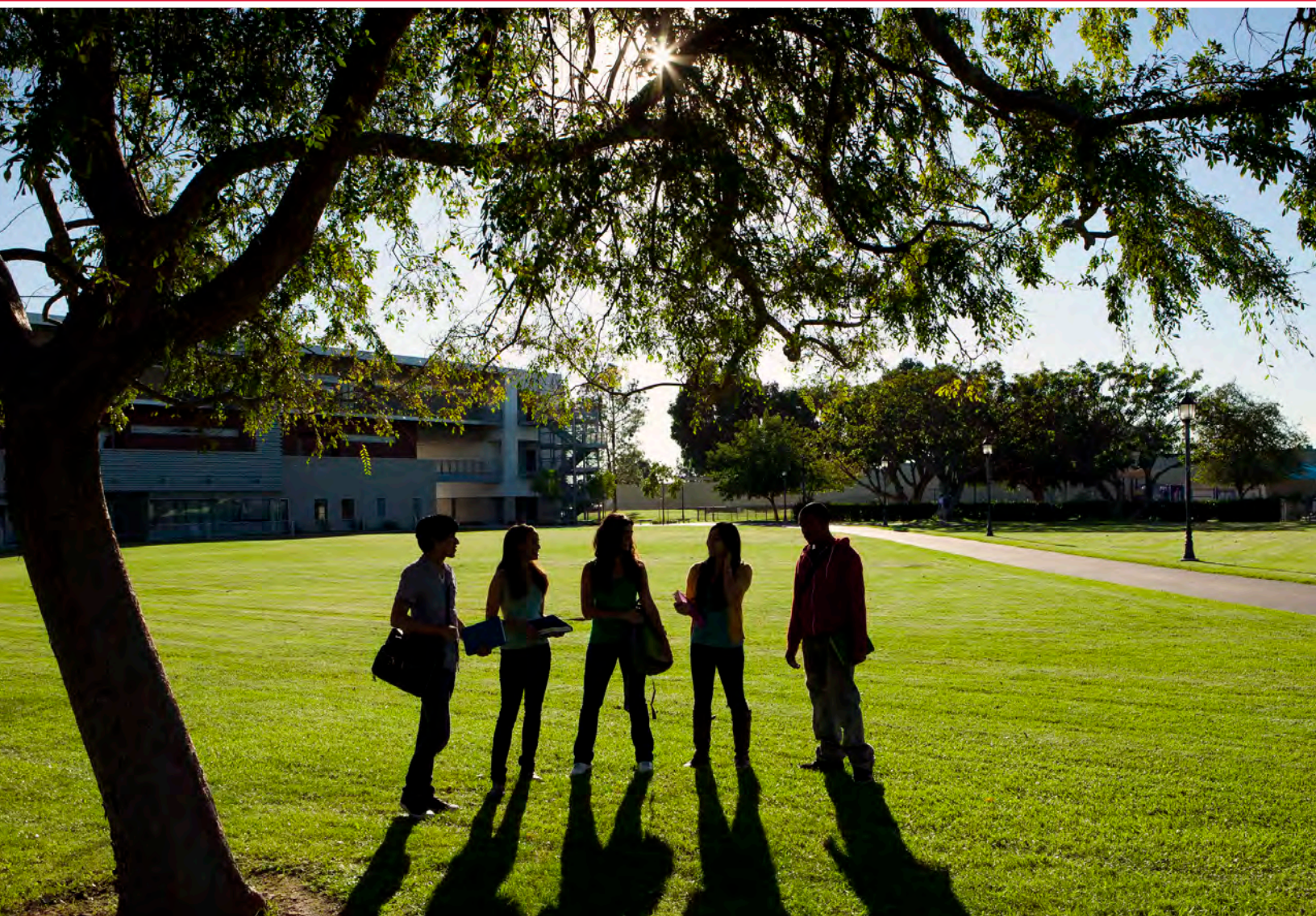


BIANNUAL REPORT ON THE ASSETS AND EDUCATION FIELD

BUILDING EXPECTATIONS, DELIVERING RESULTS:
ASSET-BASED FINANCIAL AID AND
THE FUTURE OF HIGHER EDUCATION



ACKNOWLEDGMENTS

AEDI is indebted to countless individuals for their invaluable guidance in pulling together this report on assets and education. In particular, the following scholars either co-authored specific chapters in the report and/or provided detailed feedback on the overall report: Dr. Reid Cramer; Rachel Black; Dr. Terri Friedline; President of the Hatcher Group, Ed Hatcher; Robert Johnston; Amy Saltzman; Robert Kelchen; Sally Kakoti; Melinda Lewis; Dr. Emily Rauscher; Dr. Trina Williams Shanks; Dr. Margaret Sherrard Sherraden; and Thomas Showalter.

We would also like to thank the Hatcher Group for editing (substantive as well as copyediting) and designing this report. It has been a valued partner in pulling together this report.

Finally, this report could not have been done without the generous support of the Lumina Foundation, Citi Foundation, Ford Foundation, and the Charles Stewart Mott Foundation.

These individuals and organizations are not responsible for the quality or accuracy of the report, which is the sole responsibility of AEDI, nor do they necessarily agree with any or all of the report's findings and recommendations.

Preferred Citation

Assets and Education Initiative. (2013). Building Expectations, Delivering Results: Asset-Based Financial Aid and the Future of Higher Education. In W. Elliott (Ed.), *Biannual report on the assets and education field*. Lawrence, KS: Assets and Education Initiative (AEDI).

FOREWORD

The Assets and Education Initiative (AEDI) is an office in the University of Kansas School of Social Welfare (<http://aedi.ku.edu>). Its mission is to create and study innovations related to assets and economic well-being, with a focus on the relationship between children's savings and the educational outcomes of low-income and minority children as a way to achieve the American dream.

The Context of Our Work

New directions for theory, research, and policy emerged with the publication of Sherraden's seminal book, *Assets and the Poor* (1991), which distinguished assets from income in terms of their impact on well-being, introducing the concept of asset-based social welfare policies. The introduction of asset building into the social sciences set off a firestorm of development over the last 20 years, leading to the documentation of the promising effects of assets and subsequent enactment of asset-building programs. Initially, much of this development focused on families' and households' asset building and well-being. The American Dream Demonstration (ADD) began in 1998, run by the Corporation for Enterprise Development, to test whether lower-income families and households could save in subsidized savings accounts, referred to as Individual Development Accounts (IDAs). The five-year ADD concluded with promising results, and the long-term effectiveness of IDAs is still being tested (Richards & Thyer, 2011). During that same year, the Assets for Independence (AFI) Act was passed into law, which established a federal grant program to provide nonprofits and government agencies with funds to offer IDAs to lower-income families and households. As a result, there are over 200 AFI-supported IDA programs nationwide (U.S. Department of Health and Human Services, 2012).

IDAs were originally proposed as accounts that would be automatically available to every citizen in the United States, accrue interest, and limit or restrict use to preapproved expenses like home ownership, microenterprise, or education. Account holders whose annual incomes fell below certain thresholds would be eligible to receive subsidies to incentivize and support their saving. Sherraden initially proposed that IDAs would be opened early in life—ideally, at birth—to promote asset building and well-being across the life span. Sherraden (1991) writes, “Because asset-based welfare is a long-term concept, some of the best applications of IDAs would be for young people. Young people would be given specific information about their IDAs from a very early age, would be encouraged to participate in investment decisions for the accounts, and would begin planning for use of the accounts in the years ahead” (p. 222). As implemented, however, IDAs are short-term, asset-building programs to assist families and households temporarily in establishing and maintaining self-sufficiency.

The gap between IDA proposals and their implementation created an opening for another savings vehicle that young people could access. These are often called children's savings accounts (CSAs). In addition to retaining the features of IDAs, such as universal availability and subsidies for young people whose families and households meet income eligibility guidelines, CSAs were to be opened automatically at birth. This way, young people could experience improved well-being as a result of this long-term approach to asset-building. CSAs were tested in the field beginning in 2003 with the Saving for Education, Entrepreneurship, and Downpayment (SEED) initiative, a national demonstration project in 12 locations across the country. Shortly thereafter, the America Saving for Personal Investment, Retirement, and Education (ASPIRE) Act was introduced in Congress to establish a national CSA policy that would open savings accounts automatically for all young people at birth.

As a concept, CSAs represent recognition of children's savings as a strategy for improving well-being. During the past two decades, a concerted, nationwide effort has sought to extend IDA-type accounts to children, with particular emphasis on access for those from lower-income households. Key features of CSA program and policy design, including universal and automatic access, enhance the impact on this target population by distributing accounts in a way that is equitable and less dependent on individual households' financial resources. This means that access to savings accounts would not depend on whether a local bank offers a savings program or families and households have a surplus of financial resources to open accounts for their children.

While CSAs are meant to promote asset accumulation for homeownership, retirement, and capitalizing a business venture, there are important reasons for focusing CSAs on higher education. Of 801 registered voters surveyed, 40% believe that making education more affordable should be the top priority of government. No other priority garnered favor from a larger proportion of study participants (Goldberg, Friedman, & Boshara, 2010). Similarly, 58% of registered voters in the study thought that the most effective use for CSAs would be to help families save for college.

In the past, education research has given considerable attention to income (Axinn, Duncan, & Thornton, 1997; Brooks-Gunn & Duncan 1997; Duncan, Brooks-Gunn, & Smith, 1998) and excluded assets as a key variable in making use of economic capital. However, in the last several years, the education and policy fields have shown increased interest in the possibilities of using assets to improve children's educational outcomes. Interest in CSAs has led to a growing need for turning research into action. It is no longer good enough for the field simply to do good research.

The Biannual Report on the Assets and Education Field

In an attempt to translate existing research into publicly consumable forms, AEDI is producing a wide-ranging report on the assets and education field. Our hope is that this will be the first of many biannual reports on the field. To make the research more accessible to a broader audience, this report will include, in addition to rigorous academic papers, short synopses of research studies, research briefs of each chapter, highlights or talking points, and infographics. AEDI also is constructing a website to host the report and all other materials.

Themes of the First Biannual Report

Based on an emerging body of evidence that suggests assets can change the way children and families think about and prepare for college, the papers in this first report reflect several themes. First, future U.S. economic competitiveness depends in large part on moving financial aid policies away from dependency on student debt and toward asset-based approaches. Second, savings (and especially CSAs) have distinct advantages over other financial aid strategies: outcomes in the short-term challenge of financing a college degree, the longer-term challenge of improving student academic readiness for college and success in college, and the postcollege challenge of achieving financial health after graduation. Finally, while all students would benefit from including asset approaches as part of the U.S. financial aid system, disadvantaged students particularly need the superior educational outcomes that might be associated with asset accumulation, many of which are evident in the experiences of their advantaged peers.

Asset-based approaches work by increasing students' stake in their own educational futures, thereby making persistence and success more likely. The simple act of opening an account for college may turn higher education into an important—instead of an impossible—goal, with a clear strategy for overcoming the barrier of high costs. Saving may be seen as a way to enable “people like me” to pay for college, which may make all the difference. For these reasons (and the fiscal and policy issues surrounding traditional financial aid), CSAs may be considered a promising college-financing strategy, in addition to more traditional financial aid products.

With warm regards,



William Elliott III, Director, Assets and Education Initiative
Senior Fellow, New America Foundation
Twente Hall
1545 Lilac Lane, Room 309
Lawrence, KS 66045-3129
aedi@ku.edu
(785) 864-2283

TABLE OF CONTENTS

CHAPTERS

Introduction:	College Completion's Role in the Transmission of Inequality	7
Chapter 1:	From a Debt-Dependent to an Asset-Based Financial Aid Model	18
Chapter 2:	Institutional Facilitation and CSA Effects	30
Chapter 3:	CSAs as an Early Commitment Financial Aid Strategy	50
Chapter 4:	From Disadvantaged Students to College Graduates: The Role of CSAs	63
Chapter 5:	How CSAs Facilitate Saving and Asset Accumulation	78
Chapter 6:	Policy Discussion	96

TABLES

Table 1.	Snapshot Comparing a Debt-Dependent Financial Aid Strategy to an Asset-Dependent Strategy	28
Table 2.	Practice and Policy Implications of Conceptualizing CSAs as Institutional Facilitators	45
Table 3.	Changes in Children's Attitudes and Behaviors During Different Stages of Development, the Role of the Family, and CSAs	84
Table 4.	The Institutional Context of Formal Banking Institutions for Low-Income Families and Their Children	89

FIGURES

Figure 1.	Rising Student Debt Is Associated With Lower Graduation Rates	21
Figure 2.	Savings for College Are Associated With Higher Graduation Rates	24
Figure 3.	Integration of Institutional Facilitation and Identity-Based Motivation Theories for Understanding Asset Effects	32
Figure 4.	Role of Institutional Facilitation in Academic Success	35
Figure 5.	College Expectations, Enrollment, and Wilt	65

Figure 6.	College Graduation Expectations in 2002 at a Two-Year or Four-Year College	66
Figure 7.	Wilt—Expected to Graduate From College in 2002, Did Not Graduate From a Two-Year or Four-Year College by 2009	66
Figure 8.	Ever Enrolled in College by 2009 by Race and Income	67
Figure 9.	Graduated From a Two-Year or Four-Year College by 2009	69
Figure 10.	Percentages of Children’s Savings Account Ownership by Income and Race (Ages 12 to 15)	83
Figure 11.	Percentages of Young Adults’ Savings Account Ownership by Income (Ages 18 to 22) and Race (17 to 23)	83

ENDNOTES	112
----------	-----

REFERENCES	114
------------	-----

APPENDICES

Appendices A-I can be viewed at <http://save4ed.com/appendices>.

INTRODUCTION

COLLEGE COMPLETION'S ROLE IN THE TRANSMISSION OF INEQUALITY

by Emily Rauscher and William Elliott

OVERVIEW

American society reflects considerable class immobility, much of which is due to the wide gap in college completion rates between advantaged and disadvantaged groups of students. In the introduction we discuss the factors that cause unequal college completion rates, introduce assets as an explanation stratification scholars often ignore, and then outline the remainder of this report.

Most Americans take pride in what they perceive as the equality of opportunity offered in the United States. Unfortunately, the facts do not support this widespread belief. Intergenerational mobility in the United States is lower than in most other developed countries (Ermisch, Jäntti, & Smeeding, 2012; Hertz et al., 2007; Jäntti et al., 2006). For example, based on intergenerational data from 10 developed countries covering children from birth through adulthood, a recent study finds a stronger association between parental education and children's outcomes—including economic, educational, cognitive, physical, and socioemotional measures—in the United States than in any other country studied (Ermisch et al., 2012). Similarly, a study comparing the extent to which individuals in the United States, UK, and the Nordic countries stay in the socioeconomic status in which they were born finds the strongest “earnings transmission” in the United States, with the strongest intergenerational links at the top and bottom of the earnings distribution (Jäntti et al., 2006).

At least since Blau and Duncan (1967), we have known that education plays a central role in the relationship between socioeconomic background and individual life chances. While credentials increase opportunities, attaining those credentials is strongly dependent on socioeconomic standing. In Blau and Duncan's (1967) path model of status attainment, for example, the status of a son's first and current occupation is more strongly associated with the son's own education than with his father's occupation. At the same time, however, the father's occupation and education account for 26% of the variation in the son's education. The remaining 74% of the variance remains unexplained in the Blau and Duncan model, but it could be related to other social background measures, such as family income, mother's education, neighborhood, and school quality, to name just a few.

Thus, although education plays an equalizing role, it also reproduces inequality by transmitting advantage from one generation to the next. For education to be a fulcrum of intergenerational mobility, then, U.S. policy must address the yawning gap in educational attainment among different economic classes.

This introduction examines the factors that lead to disparities in college completion. College completion is a particularly important milestone because evidence suggests that a college degree, more than other aspects of the educational experience, carries the greatest potential for improved economic standing (Belman & Heywood, 1991; Bills, 2003). Unfortunately, many Americans never reach this milestone,

even if they enroll in college. According to the National Center for Education Statistics (2011), only 58% of those who entered a four-year institution in 2004 completed a degree within six years.

Completion rates at two-year colleges were even lower for the 2004 cohort—around 28%. In today's economy, a college degree is a prerequisite for most so-called good jobs that provide a living wage. A recent report by Carnevale, Smith et al. (2011) finds that only 36% of high school graduates without any college education earn at least \$35,000 a year (which the authors consider to be a living-wage cutoff and nearly 150% of the poverty level for a family of four). In contrast, 46% of those with some college and 69% of college degree holders earn above the living-wage cutoff. In addition, the number of living-wage jobs accessible to those without any college education is declining (Carnevale, Smith et al., 2011), which suggests that postsecondary education will become even more important for access to living-wage jobs in the future. Research also suggests that bachelor's degree attainment begins to equalize opportunity by parental class and income (Hout, 1984, 1988; Torche, 2011). However, while poor students who make it through college today may enjoy more equitable opportunities than they would otherwise, the unequal chances of completing a degree – which is itself heavily influenced by parental resources (Bowen, Chingos, & McPherson, 2009) – make college graduation an important factor in the intergenerational transmission of inequality (e.g., Carnevale & Strohl, 2010; Haskins, 2008).

Below we review evidence of the relationship between individuals' characteristics and college completion. First, we outline some of the typical explanations for intergenerational transmission of college completion, including income, parental education, cultural and social capital, quality of academic preparation, health, and behavior. The second section reviews evidence of an alternative mode of intergenerational transmission: assets, the main focus of this report. Then we describe what follows in the remaining chapters of this report.

TYPICAL EXPLANATIONS FOR UNEQUAL COLLEGE COMPLETION

Over the years researchers have discovered many factors that predict college completion. In the following section we review a number of them in greater detail.

Parental Income

Young adults with parents earning at or below the poverty level will have difficulty financing even one year of college, let alone the four or five that may be necessary to complete an undergraduate degree. Watching their parents struggle to earn enough money for even the basic necessities of food and housing may make low-income students averse to student loans, further constraining educational choices and, potentially, leading students to choose less expensive institutions, which may also have fewer supports and lower graduation rates (e.g., Carnevale & Strohl, 2010; Cunningham & Santiago, 2008). Furthermore, families with low incomes are more susceptible to financial shocks, including job loss, health emergencies, or medical bills (Acs, Loprest, & Nichols, 2009; McKernan, Ratcliffe, & Vinopal, 2009; Pew Charitable Trusts 2013). Such financial emergencies could drive a student out of college and into the workplace to help support the family (e.g., Elliott, 2013a), or students from low-income families may have to balance a heavy workload with a heavy course load (Walpole 2003). Student employment can help pay for college but may detract from both academic and social engagement at school, making it easier to drop out. In fact, Hamilton (2013) finds that funding college from a student's work income may reduce the likelihood of graduation.

In contrast, students from higher-income families often enjoy uninterrupted support throughout their college career. While in college, higher-income students may not need to work, allowing more time for study and extracurricular involvement, which strengthens ties to the school and peers and discourages students from dropping out (Walpole 2003). Furthermore, if students from higher-income backgrounds have more options in deciding where to attend, they are likely to choose a more selective, better-quality school with higher retention rates (Carnevale & Strohl, 2010; Davies & Guppy 1997). Students with higher-income parents also tend to have access to better-funded secondary schools, which encourage higher academic achievement and better-quality teachers (Card & Krueger, 1996; Condrón & Roscigno 2003; Johnson, 2006), thus enabling better college preparation.

Research supports the importance of parental income, finding that family income is significantly related to college completion, even when controlling for other factors, such as family assets or liabilities (Kim & Sherraden, 2011; Nam & Huang, 2009). Parental financial contributions to college, related to family income, correlate with lower student grade point averages, but increase the likelihood of college completion (Hamilton, 2013). Hamilton (2013) suggests that students receiving parental financial contributions appeared to lower their performance but not to a level where they would have to leave college. She suggests children reduce effort and get lower grades because parental investments are most often not tied to performance; in return, children do not feel the economic cost of performance. However, given that many of the positive economic effects of postsecondary education accrue with college graduation, these advantaged students may not pay a long-term price for their decreased personal investment in academic achievement.

Other research qualifies the importance of income. Among Hispanic/Latino immigrant children, for example, income may not significantly predict college completion (Song & Elliott, 2011). While income is significantly related to degree completion among White children, Zhan and Sherraden (2011a) do not find a similar relationship among Black or Hispanic/Latino children. These null effects suggest that there may be interventions capable of influencing low-income students' educational trajectories, short of equalizing their families' incomes.

Raising further doubts about the role of income, Elliott (2013a) finds that income shocks—a 25% or greater decrease in income—are positively related to college completion. This finding echoes recent evidence that income is negatively related to college completion among all (Elliott, 2013b), Black (Friedline, Elliott, & Nam, 2013), and low- to moderate-income children (Elliott, Song, & Nam, 2013a), when accounting for family assets. Potential explanations for this counterintuitive evidence include low-income students' propensity to enroll in two-year degree programs, and higher-income parents with more information about the financial aid process purposely limiting their income to increase aid eligibility. These findings suggest a complex relationship among income, assets, parental education, and college completion rates.

Parental Education

There is evidence that parental education plays a role in completing college once a student has been accepted, suggesting that, even more than parents' income, parental ability to help students navigate the complex choices that accompany the pursuit of higher education may be a particularly important influence on students' success. Comparing first-generation college students, whose parents have no

college education, to traditional students offers the starkest contrast. Studying students at public flagship universities, Bowen et al. (2009) find that even after adjusting for differences in high school grade point average, SAT or ACT scores, state residency status, race or ethnicity, gender, family income, and the university a student attended, children of parents with a bachelor's degree were still 6% more likely to complete a degree within six years than were children of parents with no college education. According to Greenwald (2012), nearly 90% of first-generation students fail to graduate within six years. Indeed, the unlikelihood of these students' college graduation may be an especially powerful factor limiting intergenerational economic mobility among American children.

Interpersonal explanations may partially account for the different experiences by parental education. For example, first-generation students tend to value interdependence, in contrast to the academic norm of independence (Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012). First-generation students may also have trouble distinguishing between debate and argument or constructive and personal criticism, which can be problematic in the classroom (Greenwald, 2012).

Regardless of the explanation, there is conflicting evidence regarding whether parental education has a causal impact on college completion rates. Other factors, such as parental income, occupational standing, academic preparation before college enrollment, or intelligence, could drive any apparent relationship between parental education and children's college completion. Recent research exploits natural experiments to isolate the effect of parental education. For example, Attewell and Lavin (2007) take advantage of the City University of New York (CUNY) period of open admission to assess the effect of mother's college attendance or graduation on children's outcomes. While they do not investigate children's college completion, they do find that mothers' college education increased the likelihood that children entered college. Oreopoulos, Page, and Stevens (2006) take advantage of changes to compulsory education requirements to create a natural experiment, finding that children of parents with more education are less likely to repeat a grade in school. While the mechanisms are not fully understood, it seems likely that these parental education effects continue throughout the college process and, indeed, postgraduation.

Family Structure

Family structure also has implications for college persistence. For example, Mare and Tzeng (1989) find that children with younger fathers are less likely to complete high school and, if they enter college, are less likely to persist in college as well. In fact, they find that father's age has a stronger effect on the likelihood of college graduation once enrolled than on any other educational transition. Because men from lower-class backgrounds are more likely to have children early, and because young fathers are less likely to have high incomes or educational attainment, parental age at birth is another way inequality is transmitted between generations, through multiple mechanisms.

Family size has similar effects on educational chances. While this research generally does not investigate college completion, it does find that having more siblings reduces individual educational attainment (Steelman, Powell, Werum, & Carter 2002). Furthermore, sibling density (age spacing of siblings) is also related to educational achievement and attainment (Conley, 2001; Powell & Steelman, 1990; Steelman et al., 2002). Children with more siblings, spaced more closely together, receive a smaller share of their parents' limited resources throughout their childhood. At the college level, Steelman et al. (2002) find

that the presence of more siblings dilutes parental financial contributions to college costs, which reduces educational attainment.

Cultural and Social Capital

One way that external inequalities could influence college completion is through cultural and social capital, the social cues and cultural norms that higher-status children acquire as part of their socialization into an advantaged class. Cultural and social capital are often but not always tied to parental education. For example, students who attend elite boarding schools could learn cultural behaviors and gain social connections regardless of parental education (Cookson & Persell, 1985; Khan, 2011). While poor students who attend on scholarship are unlikely to gain equal status—or feel they fully belong in such an elite world—they do gain valuable cultural and social capital.

The importance of cultural capital stems from the idea that schools reward students for academic knowledge but also for cultural knowledge and behavior “appropriate” for that cultural context. Students come to school with different levels of familiarity with the art, music, literature, and even language. Those who acquire valuable forms of cultural knowledge and behaviors from their parents often experience higher achievement at school (Bourdieu, 1977; DiMaggio, 1982).

Parents are strong transmitters of cultural capital, and parental practices are major contributors to the cultural inequalities that students carry with them to school (Lareau, 2002, 2003). Middle-class students, whose parents constantly question and negotiate with them, have a greater level of comfort with teachers and other authority figures at school. These same students participate in many extracurricular activities that further improve school interactions and engagement and groom the students for the college application process. A decade after her initial study, Lareau (2011) found that middle-class parents continue to help their children navigate the college experience, giving advice about courses and majors, for example, that lower-class parents would not be able to provide even if their children made it to college. In Lareau’s study, children of educated parents gained this valuable knowledge. However, if the key is knowledge about navigating the college process, cultural capital could be important beyond any effects of parental education itself.

While few have investigated the role of cultural capital at the postsecondary level, there is evidence that it plays a role in college achievement and persistence (Spenner, Buchmann, & Landerman, 2005; Wells, 2008). For example, research has examined the extent to which cultural capital influences persistence for first-generation college students, who have much lower completion rates than other students. First-generation students have more difficulty grasping the implicit expectations and priorities of professors (Collier & Morgan, 2008). Given this difficulty of having to learn academic content while also learning the role of college student, first-generation students’ academic performance tends to suffer. Both academic and social integration are important to college success, so these challenges can reduce the likelihood that first-generation students will graduate (Collier & Morgan, 2008; Tinto, 1975, 1987).

Social capital researchers focus on explanations for student retention rooted in social engagement in campus life. Today, universities generally have an office of student life that encourages social activities, partly with student retention in mind. Engagement through extracurricular activities, for example, can improve students’ attachment to college and increase their chances of graduating or even earning

a graduate degree (Tinto, 1987; Walpole, 2003). Participation in such activities is unequal by social background (Walpole, 2003). If a student must work to finance his or her college education or help support a family, the student is less able to participate in these social activities. Finally, upper-class students have a stronger sense of belonging at an institution, on average, than do lower-class students (Ostrove & Long, 2007). For example, students who are more familiar with elite culture may feel more comfortable on a college campus (Ostrove & Long, 2007), understand their professors better, and have an easier time interacting with faculty and students. Not only does a sense of belonging have direct implications for college completion, but social class also influences college outcomes through this aspect of social capital (Ostrove & Long, 2007). In this way, social capital or belonging plays a role in the intergenerational transmission of inequality.

Beyond social engagement, however, the type of peers with whom students interact also affects outcomes. Taking advantage of random first-year roommate assignments, Sacerdote (2001) finds that peers' academic ability and grade point average influence individual grade point average. Because students with lower academic success or who are less academically engaged are more likely to leave college (Tinto, 1987; Wells, 2008), this has implications for college retention rates. Eckles and Stradley (2012) find that peers have a direct effect on attrition as well. Students with a greater proportion of college leavers in their social network are also more likely to leave. The friendships a student forms at college, therefore, can have important implications for college completion and could be unequal if students befriend others with similarly disadvantaged social backgrounds.

Mental and Physical Health

Several studies (Behrman & Rosenzweig, 2004; Black, Devereux, & Salvanes, 2007; Conley, Strully, & Bennett, 2003; Oreopoulos, Stabile, Roos, & Walld, 2008; Royer, 2009; see Eide & Showalter, 2011 for a review) using twins to estimate the effect of birth weight on educational attainment, find that higher birth weight relates to increases in educational attainment. Others use differences in the timing of health shocks while an individual was in utero to estimate the effects of prenatal health on educational attainment. All find that prenatal exposure to health shocks or environmental toxins reduced educational attainment later in life (Almond, 2006; Almond, Edlund, & Palme, 2009; Almond & Mazumder, 2005). The bulk of this research studies effects on educational achievement (grade point average or test scores) or years of educational attainment. Nilsson (2008) explicitly examines effects on college completion, finding that children conceived by young mothers after Sweden restricted children's access to alcohol were more likely to graduate from higher education. This effect, however, only applies to men (sons). Other research finds that height, which proxies for prenatal and early childhood health (Case & Paxson, 2010a), is associated with additional years of educational attainment and higher test scores, even within families (i.e., including sibling fixed effects) (Case & Paxson, 2010b).

Studying postnatal health effects, Nilsson (2009) exploits exogenous differences in lead exposure and finds that this toxin lowers a variety of attainment measures, including the likelihood of high school graduation. This effect varies by socioeconomic status, as well. This environmental hazard affects fewer higher-status children, suggesting that higher-class backgrounds can protect children from potentially negative health effects. In terms of mental health, there is evidence that depression, attention deficit symptoms, delinquency, and substance use decrease educational attainment and test scores (Fletcher & Lehrer, 2009; Fletcher & Wolfe, 2008; McLeod, Uemura, & Rohrman, 2012).

While little research has examined health effects on college completion, the robust evidence that health improves a variety of other educational measures suggests that effects on college completion are likely. Mental and physical health is unequally distributed by socioeconomic status (Wilkinson, 1997; Adler, Boyce, Chesney, Folkman, & Syme, 1993), and class advantage can protect individuals from poor health or environmental stressors (Nilsson, 2009). Thus, health inequalities transmit advantage between generations because upper-class children face fewer health challenges and are protected from those they do experience.

Behavior, Intelligence, and Academic Preparation

Variations of human capital theory offer another explanation for differences in college completion. Whether due to intelligence, academic preparation, or behavior (e.g., study time, study techniques, hard work, ability to focus, or drug use), these explanations generally suggest that individuals leave college because they do not meet academic standards. Sewell and Shah (1977), for example, suggest that class sorting has already occurred by the time students get to college, and intelligence is more important than socioeconomic status for college graduation. A classic functionalist view (Davis & Moore, 1945) is that inequality is necessary to attract the best and brightest individuals to society's most important jobs. Schools, including colleges, play an important role in this process, sorting individuals into their appropriate positions in society (e.g., Sorokin, 1959). If colleges sort students accurately by ability (i.e. in a meritocratic way), then students must fail because they do not try hard enough or cannot do the work. If that sorting process ends up reproducing inequality, so the story goes, it must be because parents transmit their ability or behaviors to their children.

There are several problems with the meritocratic argument in the context of college completion. First, specific traits (such as shyness) are by themselves unlikely to account for substantial variation in college completion. While alcohol use, for example, may be partially inherited and related to college completion, it is unlikely that alcohol alone can explain a substantial portion of the intergenerational transmission of college completion. Further, we know that the degree of intergenerational transmission of educational attainment varies across countries, while hereditary transmission of core traits could not be expected to vary according to national boundaries (Hertz et al., 2007).

Related to this inheritance story, even if genes matter for educational attainment, gene-environment interaction effects suggest that the effect of specific genes depends on social environment. For example, Shanahan, Vaisey, Erickson, and Smolen (2008) find that the "risky" DRD2 genotype is associated with lower likelihood of postsecondary school attendance for boys. However, they also find that this risk is moderated by social capital; boys with high social capital show little association between genotype and college attendance, while the relationship holds among those with low social capital. Similarly, Guo, Roettger, and Cai (2008) indicate that regular family meals eliminate the delinquent tendencies associated with the "risky" DRD2 genotype, while Pescosolido, Martin, Lang, and Olafsdottir (2008) find that family support reduces the genetically influenced risk of alcohol dependence. While the jury is still out on these gene-environment interaction effects (e.g., Conley & Rauscher 2013), there is reason to believe that even if there are any genetic effects on college completion, they may be moderated by social background, which is obviously more amenable to societal interventions than genetics.

In a similar vein, Loehlin (2005) finds that genes' impact on personality occurs largely in ways that do not transmit traits between generations. Based on this evidence, Loehlin concludes that genes do not play much of a role in any intergenerational transmission of status through personality.

A second objection to the meritocratic argument is that intelligence is not a simple, constant, or inherent attribute. As Gardner (1983, 1993) notes, there are multiple forms of intelligence. Universities tend to value certain forms of intelligence, such as logical-mathematical and linguistic, more than others. In addition, intelligence changes with time and experience (Flynn, 2007), and it does not equate to success. Students receive unequal experiences and feedback in college depending on their background. For instance, students' opinions are likely to receive different responses depending on how closely they match the views and cultural background of the faculty. Research on teacher perception suggests that grades are strongly dependent on perception and social labeling (e.g., Rist, 1977). If the process works similarly at the postsecondary level, professors could perceive privileged students more favorably than they do others. Even beyond grades, college experiences can vary by social background. From a young age, middle-class students have a greater sense of entitlement and level of comfort in academic settings, which facilitates interaction with adults and authority figures (Lareau, 2002, 2003) and asking for help (Calarco, 2011). Similarly, college students from advantaged backgrounds are more likely to meet with professors at their homes and spend more time in student clubs (Walpole, 2003). Thus, while all college students are smart and able enough to gain entrance into college, these different opportunities contribute to unequal opportunity by social background.

Finally, meritocratic explanations for unequal college completion overlook the significant inequalities in academic preparation. Multiple studies (Condrón & Roscigno 2003; Kozol 1991) document the drastic inequalities among schools—even those near each other—that provide widely different levels of academic preparation. Low-income students' parents are also less able to support academic achievement, compounding the disadvantage with which these students struggle during school hours. Recent evidence stresses the importance of academic preparation for student persistence. For example, Stinebrickner and Stinebrickner (2013) find that what students learn about their academic performance (i.e., grades) accounts for 45% of dropout that occurs in the first two years of college and 36% of dropout in the first three years. Rather than learning that they need to study more, students who earn low grades tend to interpret their poor performance as indicating that they are not academically prepared (Stinebrickner & Stinebrickner, 2012). Given unequal academic preparation, early academic performance is likely to generate unequal dropout rates by social background. Aside from preparation, low-income students are more likely to work to finance their education, reducing available time for studying (Walpole, 2003).

Stratification scholars typically use income, education, and occupation as measures of socioeconomic standing. Assets represent a distinct form of inequality with important implications for a variety of outcomes (Conley, 1999). As Oliver and Shapiro (1995) note, wealth may be a more important measure of inequality because of its relationship to power (power is a topic we discuss more in chapter 4) and, particularly critical for this discussion of intergenerational inequality, its long-lasting effects. The role of financial and nonfinancial assets in the intergenerational transmission of education has become more visible in the last decade (e.g., since Conley, 1999, 2001). This report focuses on this new line of inquiry to explain differences in children's educational attainment.

CHILDREN'S SAVINGS ACCOUNTS AS A COLLEGE COMPLETION STRATEGY

Michael Sherraden (1991) proposed Child Development Accounts (CDAs), more often called children's savings accounts (CSAs) today, as a way to create an inclusive and accessible opportunity for lifelong savings and asset building. Specifically, CSAs can serve as a policy vehicle to allocate both intellectual and material resources to low- and moderate-income children. National interest in the potential for CSAs to provide greater access to and completion of college for more children is evident in the rapidly changing U.S. Department of Education (DOE) policy on children's savings. In November 2010, the DOE, Federal Deposit Insurance Corporation (FDIC), and National Credit Union Administration (NCUA) established a new federal partnership to encourage schools, financial institutions, federal grantees, and other stakeholders to work together to increase financial literacy, access to federally insured bank accounts, and savings among students and families across the country. Then, in 2011 the DOE announced an invitational priority for applicants in the GEAR UP grant competition that reflected Secretary of Education Arne Duncan's interest in financial literacy and savings as part of a plan for ensuring secondary school completion and postsecondary education enrollment of GEAR UP students. Further, on May 31, 2012, the DOE announced a new college savings account research demonstration project that will be implemented within the GEAR UP program. Moreover, a growing number of cities and states have also begun to plan or have already adopted CSAs as a strategy for improving children's futures.

Broadening the Case for CSAs

Chapter 1 discusses why a broader case for CSAs is needed. Within the assets and education field, the primary rationale for including CSAs in a 21st-century financial aid strategy is their positive effects on college access and completion. However, research suggests that there might be a broader case for including CSAs. This case not only includes CSAs' impact on accessing college but also their effects on children's preparedness for college and their postcollege financial outcomes. We suggest in the rest of this report that, as policymakers and educators consider offering CSAs more broadly, they consider the full range of arguments for asset-based approaches to financial aid. Particularly in the context of limited public resources with which to pursue education-related goals, any financial aid approach with the potential to bring improved outcomes at the individual and societal level, before, during, and following college graduation, deserves our serious consideration.

Early Childhood Effects

Chapters 2 and 3 of this report discuss the potential of CSAs for early childhood effects. While student loans are meant to address credit constraints around the time of college entry, evidence suggests that CSAs might also act as an early childhood intervention. This distinction is important; student borrowing only helps to finance college at the point of enrollment for those who have qualified to enroll in college. However, some education researchers argue that financial resources have their strongest effect on children's educational outcomes early on in the child's life, not at the point of college entry (Cameron & Heckman, 1998, 2001; Cameron & Taber, 2004; Carneiro & Heckman, 2002). These researchers find that when academic ability is taken into account, income effects on high school completion, college enrollment, and college completion decrease significantly (Cameron & Heckman, 1998, 2001). Therefore, they suggest that the long-term effects of financial resources on family background factors explain the relationship between financial resources and whether a child enrolls in and completes college. That

is, the ability of financial resources to affect a child's preparedness for college really matters, not their ability to help them pay for college at the time of high school graduation. If this were the case, it would seem that student loans could play only a small role in improving college access, while policies that help children build college assets (i.e., assets of any type held by them or their family and intended to help pay for college) early in life could affect their academic preparation and, therefore, the likelihood that they will succeed in higher education. Indeed, these are effects seen in other areas of intervention to address inequity; investments made earlier in a child's life often yield greater dividends than those offered later.

College Access and Completion Effects

Chapter 4 discusses the potential of CSAs to improve children's access to college. Assets likely have both short- and long-term effects. For example, Huang, Guo, Kim, and Sherraden (2010) conduct a simultaneous test of the two theories that include assets: (a) short-term borrowing constraints and (b) long-term family background. They find that early liquid assets (i.e., easily fungible assets) have a significant relationship to children's long-term effects. That is, early liquid assets (ones the household has when the child is between ages 2 to 10) work with children's academic ability to influence whether they attend college. The effect is stronger for low-income children than it is for high-income children. Liquid asset findings are similar to those for income in this study. However, unlike in the case of income, late liquid assets (between ages 14 and 19) also seem to be important for short-term effects (i.e., paying for college).

Research also examines whether college assets increase or reduce the likelihood that students report paying for college with student or family contributions (see Elliott & Nam, 2013a). Elliott and Nam (2013a) find that different types of college assets affect how students pay for college in different ways. For example, planning to mortgage a home to pay for college and telling a student to put aside earnings for college in 10th grade are positive predictors of student contributions in all three samples. It might be that planning to mortgage a home and telling a student to put aside earnings signal to students that parents do not have enough money put aside to pay for college, and students will have to contribute if they want to go to college. This might be interpreted positively, at least among students who apply for financial aid and who attend college.¹ These students might interpret these types of assets as meaning that, even though their parents cannot afford to pay for college, their parents see it as a worthwhile investment and are trying to figure out how to make college a reality. While these assets might be interpreted as positive and encourage students to work toward college and contribute financially, they do not provide actual resources for paying for college. Thus they are positively related to student contributions.

Chapter 4 also discusses the role CSAs may play in improving college completion rates. There is little evidence to suggest that, in particular, high student loan debt is positively related to college persistence or completion (see Heller, 2008). This is critical because college graduation rates are even more inequitable than college enrollment rates. About 49% of White male students who graduated from high school in 2004 enrolled in a four-year college by 2006, compared to 43% of Black male students—a 6% gap (Ross et al., 2012). In comparison, about 69% of White male students who started at a four-year college full time in 2004 completed a bachelor's degree by June 2009, compared to 48% of Black male students—a 21% gap (Ross et al., 2012). Students who complete college do better economically than students who do not; indeed, much of the value of a college education may be accrued with graduation, not just

attendance. For example, median lifetime earnings in 2009 for a person with a bachelor's are \$2,266,000; associate degree, \$1,727,000; some college, \$1,547,00; and high school diploma are \$1,304,000 (Carnevale, Rose, & Cheah, 2011).

Children's Savings and Postcollege Effects

Chapter 5 discusses the link between children's savings and their financial outcomes beyond college. Even beyond educational outcomes, there are considerable corollary benefits to preferring an asset-based, rather than debt-heavy, approach to financing higher education. Emerging research by Friedline and colleagues has provided some evidence that accruing savings as a child is associated with increased likelihood of asset accumulation into adulthood. As a result, children may leave college better equipped to pursue important financial goals as young adults. For example, Friedline and Elliott (2013) find that children between ages 15 to 19 who have savings are more likely to have a savings account, credit card, stocks, bonds, vehicle, and a home at age 22 to 25 than if they did not have savings of their own between ages 15 to 19.

These findings are especially meaningful for a generation that might not be better off than its parents'. Urban Institute research finds adults in their mid-30s have accumulated no more wealth than their counterparts 25 years ago (Steuerle, McKernan, Ratcliffe, & Zhang, 2013). Since restoring the American dream requires not only equitable access to equalizing educational opportunities but also ladders of opportunity throughout society, the potential for an asset-based approach to college financing to help chart dramatically different financial profiles postcollege—of savers, rather than debtors—demands that we examine these alternatives.

Policy Discussion

There are various options for putting CSAs into practice in national policy structures, including retooling state 529 college savings plans, developing lifelong savings vehicles through the tax code, and/or reimagining the Pell Grant program as an early commitment approach. Chapter 6 explores the history and potential future of CSAs in the United States and around the world and offers principles to guide consideration of CSA policy development.

KEY POINTS

Contrary to the ideal of higher education as an equalizing force in U.S. society, there is considerable evidence that disparities in college attainment may be powerful mechanisms through which economic mobility in the United States is constrained. A wide range of characteristics—family income, parental education, cultural capital, and the like—all shape children's educational experiences and predict college entry and success. Beyond these more common explanations, however, assets also play an important role in college attainment.

CHAPTER 1

FROM A DEBT-DEPENDENT TO AN ASSET-BASED FINANCIAL AID MODEL

by William Elliott

OVERVIEW

The price of higher education, traditionally a passport to financial security in the United States, has increased dramatically in recent decades. This change is largely due to a shift in higher education financing—from a collectively funded public good to reliance on individual and family contributions—and has implications for education’s ability to be an equalizing force in the United States economy.

Asset-based financial aid models offer an alternative to the current debt-dependent form of financial aid for low-income students. While high student loan debt may hinder college completion and even deter enrollment among some low-income students and students of color, promoting asset development can ultimately reduce the need for loans and, by itself, improve educational outcomes. Limiting the amount of individual borrowing may improve outcomes on several measures critical to long-term U.S. economic success and to the realization of greater equity: student and family capacity to finance college, student academic preparedness for college, enrollment and graduation among disadvantaged students, educational attainment for students while in college, and financial independence for new graduates. Furthermore, asset-based policies such as children’s savings accounts (CSAs)—which, unlike loans, build resources for college before enrollment—have been found to shape students’ expectations about their own educational futures, illustrating the greater transformative power of assets, as contrasted with financial aid available at enrollment. For all of these reasons, policies that combine smaller student loans with asset-based approaches—including both new savings structures and retooling existing savings and financial aid offerings so they build on asset accumulation principles and better meet the needs of low-income students—could be a financial aid model that builds college readiness more effectively among low-income students, improves their access to college, and increases their chances of success in higher education and of postgraduation financial security.

HIGHER EDUCATION AND THE AMERICAN DREAM

In its simplest form, the American dream is the belief that success is a result of effort and hard work, coupled with ability. This idea is embedded in the psyche of most Americans and shapes the way we collectively view individuals' successes or failures, as well as the social policies that undergird opportunities or perpetuate disadvantage. The term American dream was popularized in James Truslow Adams's 1931 book, *The Epic of America*. This dream of working hard to build a better life—a central driver in the history of our nation—is associated with the constitutional right of all citizens to the “pursuit of happiness.” However, especially in the aftermath of the Great Recession, some have begun to question whether the American dream is actually attainable (Zogby, 2009). These doubts first took root with the increase in economic inequality that has been taking place since the 1970s (Hochschild, 1995; Mishel, Bernstein, & Shierholz, 2009). Stagnant wages, rising college costs, and economic pressures intensified through economic globalization have called into question the supposed axiom that subsequent generations of Americans would be more prosperous than previous ones. In individual families and in the collective sphere, conversations lament the perception that the American dream is elusive for many. Over time, this may erode belief in the link among opportunity, effort, and success, changing how Americans think about our economy and their future, including how students contemplate the value of an increasingly expensive college education.

Especially since the beginning of the 20th century, few institutions have been more important in sustaining the American dream than public schools, colleges, and universities (see, e.g., Hochschild & Scovronick, 2003). As early as the 19th century, Horace Mann called education “the great equalizer of the conditions of men” (1848, p. 59). Since then, a widespread belief has persisted that economic disparity can be narrowed through effort in school and the pursuit of higher education. Through this lens, academic failure and its subsequent effects on career mobility can be blamed for much of the hardship that disadvantaged groups of Americans experience.

However, there is evidence that education might not benefit everyone equally. In fact, it might actually be helping to maintain the status quo (e.g., Carnevale & Strohl, 2010; Hertz et al., 2007). For example, Hertz et al. (2007) find a 0.46 correlation between parents' education level and their children's education level, which suggests that education may channel children into the same social class as their parents. Similarly, Haskins (2008) finds that 54% of adult children with parents in the top income quintile make it into the top income quintile themselves. In comparison, 19% of adult children from the bottom income quintile make it into the top income quintile.

On the other hand, using five longitudinal data sets, Torche (2011) finds that college degree holders enjoy greater intergenerational mobility than those with less (or more) than a bachelor's degree. Class, occupational status, earnings, and household income outcomes are least associated with these parental measures among adults who hold a bachelor's degree. Thus, ensuring equal opportunity to achieve a college degree is critically important, but, here, too, patterns of disadvantage and relative privilege are perpetuated.

To set the table for a balanced discussion of the present state of college access in the United States, we need to reexamine the systems that facilitate or impede access to higher education, as well as the effects of that education, once delivered. This includes exploring the effects of student self-efficacy (a student's

belief about his or her ability to exercise influence over life events) and institutional efficacy (the extent to which institutions hinder or support self-efficacy) on college-going. We also must examine 1) whether student loans, which were supposed to make college more accessible, can actually help to level the playing field; and 2) whether asset-based strategies, such as children's savings accounts (CSAs), can extend beyond children's ability to access college to improve success in college and after.

SELF-EFFICACY, INSTITUTIONAL EFFICACY, AND COLLEGE PREPAREDNESS

Self-efficacy and the effects of expectations on individual behavior are based on decades of research (e.g., Bandura, 1997). However, in Chapter 2 we propose that self-efficacy is only one important dimension of perceived efficacy. The kind of self-efficacy an individual develops (internalizing or externalizing) may differ based on environmental influences. To explain how this happens, we introduce the concept of institutional efficacy. Institutional efficacy is defined as children's beliefs about the effectiveness of using institutional resources to produce designated levels of performance that influence events that affect their lives. We go on to suggest that institutional efficacy is also critically important—children need consistent and supportive relationships with the formal institutions they encounter to be able to perform school-related activities successfully. Many formal institutions low-income children encounter are not supportive, however, and they quickly learn that they must expend a great deal of effort to achieve minimal outcomes (and later learn that they face significantly more barriers than middle- and upper-income children do). A key question in evaluating financial aid models is the extent to which they represent “institutional facilitation”—efforts by institutions to express high expectations and consistent support.

THE EFFECTS OF STUDENT LOANS ON HUMAN CAPITAL DEVELOPMENT

Research on education and mobility has largely ignored the role of outstanding student debt on education's ability to function as an equalizer. Many Americans see taking out a student loan as an investment that supports long-term achievement (Cunningham & Santiago, 2008). Student loans are seen, then, as a sort of down payment on the American dream, a necessary price to pay for access to human capital that opens doors to promising opportunities. From this perspective, all that matters is that the student who goes to medical school, for example, is better off (has increased lifetime earnings) than if he or she did not go to medical school. But this borrowing may have real costs for students' balance sheets that weaken the ability of education to act as an equalizer. Additionally, the system's default to borrowing as the vehicle to finance higher education may, itself, discourage some groups of potential students from enrolling in college at all, thus blocking educational progress rather than facilitating it. On a macroeconomic level, rising levels of student debt—now more, in the aggregate, than credit card debt—affect growth prospects for the economy as a whole.

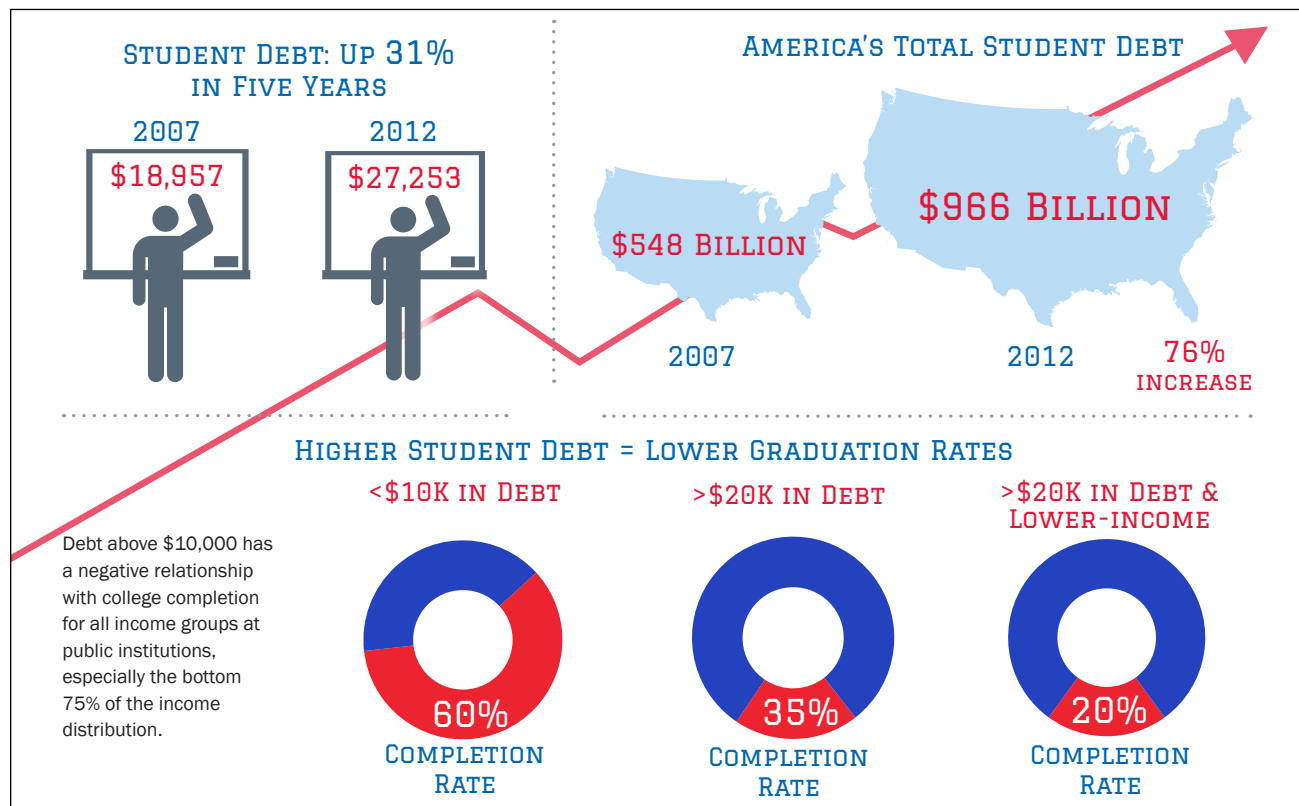
Put another way, outstanding student debt actually may magnify the effects of inequality already in the system, inequality defined as two people who invest similar levels of effort and ability in college yet achieve dissimilar outcomes upon graduating. In speaking about the American dream, Thomas Shapiro (2004) said, “The genius of the American Dream is the promise that those who work equally hard will reap roughly equal rewards” (p. 87). If student debt puts one person at a disadvantage compared to another who does not have student debt, and if students are comparatively more or less likely to have to rely on significant student debt based on the relative disadvantage or advantage they bring to the college financing decision, it fails to act as an equalizer.

The Shift Toward Individual Responsibility Has Led to Rising Student Debt

The student-based financial aid model in America is based on a belief that education, and especially higher education, is primarily a commodity “purchased” by individual students, who then reap its rewards (Baum 1996; Heller & Rogers 2006). Changes in federal and state policies in recent years have shifted higher education toward the commodity model. Increased tuition costs and reductions in grant-based aid have meant students and their families are taking on more of the burden of paying for college. Dependence on student loans as a way to pay for college has risen, at least in part, because of the shift in financial aid policy over the last several decades toward greater individual responsibility.

If higher education is indeed primarily a commodity, students should bear much of the cost of education. And they do, now more than ever. Fry (2012) finds that 40% of all households headed by an individual younger than age 35 has outstanding student debt. The proportion of undergraduate students who took out federal loans increased from 23% in 2001–2002 to 35% in 2011–2012 (College Board, 2012). According to Fry (2012), the average outstanding student loan debt in 2007 was \$23,349, and it rose to \$26,683 by 2010. Further, total borrowing for college hit \$113.4 billion for the 2011–2012 school year, up 24% from five years earlier (College Board, 2012). As a result, households are faced with ever-growing debt. In the 2011–2012 school year, about 37% (\$70.8 billion) of all undergraduate financial aid received came from federal loans (College Board, 2012). The next highest source of aid was federal Pell Grants at 19% and institutional grants at 18%.

FIGURE 1. Rising Student Debt Is Associated With Lower Graduation Rates



College Cost Burdens Are Not Equal

The financial aid policy trend toward personal responsibility raises the question of whether this policy burdens some students and their families disproportionately. Elliott and Friedline (2013) take up this question in “You Pay Your Share, We’ll Pay Our Share”: The College Cost Burden and the Role of Race, Income, and College Assets.” This study provides some evidence that parents may communicate a meta-message to their children: “You pay your share, we’ll pay our share.” However, some parents are better equipped financially to pay their share than are other parents. This raises two related questions for evaluating financial aid policy. First, is available financial aid sufficient to provide equitable access to higher education for those who apply and enroll? Second, is available financial aid sufficient to support student self-efficacy among younger students? The climate of rapid increases in college costs may be affecting both of these questions, and these costs are projected to increase into the near future, especially given projected state budget cuts.

In the case of low-income (annual family income of \$0 to \$20,000) students, Elliott and Friedline (2013) find little evidence that low-income students are being asked to bear more of the burden of paying for college compared to other income groups based on their college cost burden. However, there are large disparities in family contributions compared to other income groups, particularly high-income (\$100,001 or higher) students, and the authors are unable to ascertain whether the number of grants and scholarships available to low-income students is sufficient to make up for reduced family contributions. That is, while the basic pattern of how students pay for college is creating equality of opportunity, financial aid may not be sufficient to actually provide equality (e.g. Advisory Committee on Student Financial Access [ACSFA], 2002, 2006, 2010).

This suggests that, while the college cost burdens for those who actually make it to enrollment may not be unfavorable for low-income students compared with higher-income students, the shift toward individual student responsibility may prevent some low-income students from enrolling at all. The shift in the financial aid system away from societal responsibility and toward individual student and family responsibility may make college appear out of reach to lower-income students, particularly those who may be reluctant to take on large debt burdens. Over time, these enrollment patterns could exacerbate the educational attainment gaps between wealthier and poorer students, since reduced college enrollment from a given community will also sever some of the information and relation ties that can facilitate access to college. That would mean, of course, that current financial aid patterns could be eroding education’s power to equalize opportunities and outcomes, in ways that may not be apparent when looking only at those who actually become college students. For example, Carnevale and Strohl (2010) find

that every year almost 600,000 students graduate from the top half of their high school class and do not get a two- or a four-year degree within eight years of their graduation. More than 400,000 of these students come from families who make less than \$85,000 a year. More than 200,000 come from families who make less than \$50,000 a year, and more than 80,000 come from families with incomes below \$30,000. (p. 93)

Moderate-income (\$20,001 to \$50,000) and middle-income (\$50,001 to \$100,000) groups appear to have the most regressive college cost burden of any income group, especially when considering four-year colleges. This is because these income groups have the highest probability of reporting paying for

college with student contributions (predominantly made up of loans) compared to societal contributions (Elliott & Friedline, 2013). To be more specific, 81% of moderate-income students who attend a four-year college report paying for college with student contributions, and 80% also report paying with societal contributions. In the case of middle-income students, the burden is even higher (78% student contributions; 69% societal contributions). With respect to four-year college attendance, low-income (73% student contributions; 87% societal contributions) and high-income (62% student contributions; 67% societal contributions) students are more likely to report paying for attendance at a four-year college with societal contributions than they are with student contributions.

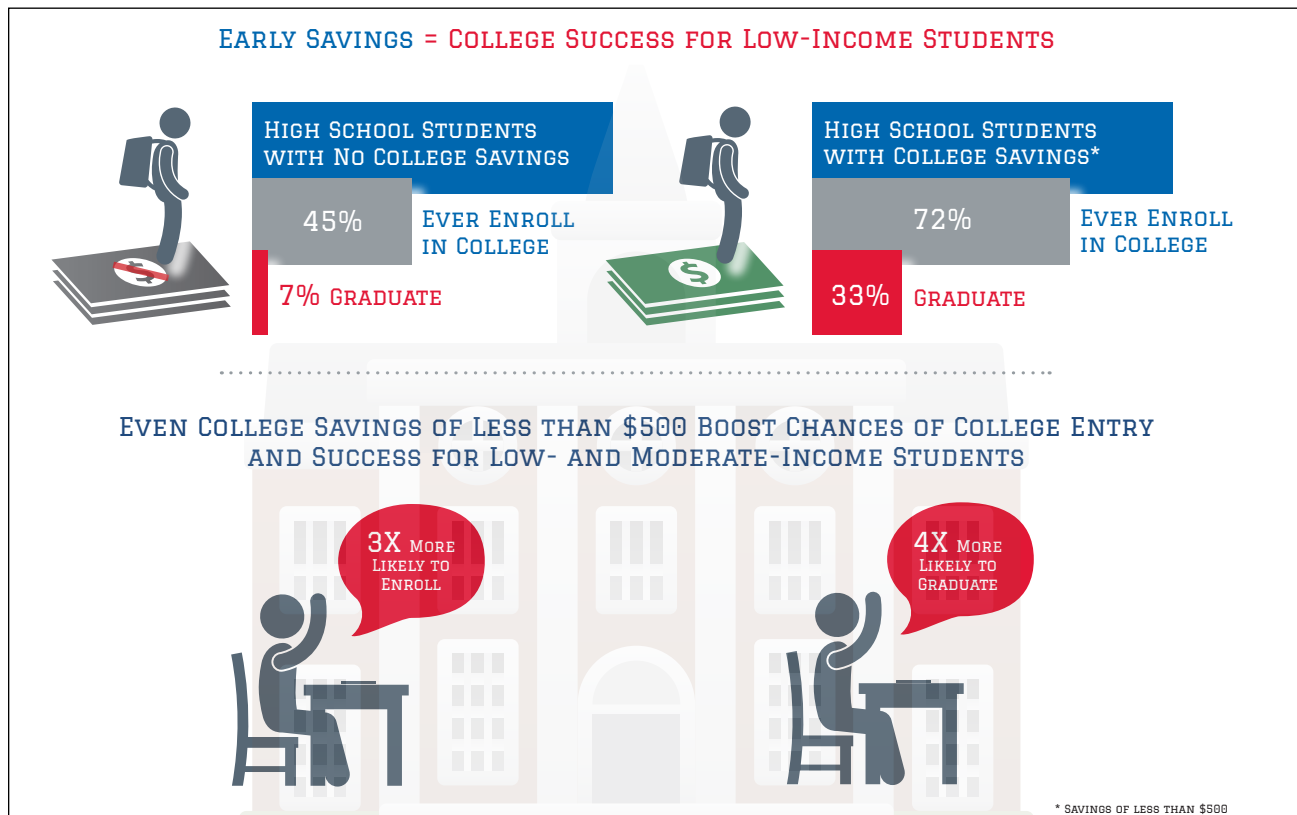
While both moderate- and middle-income students might be discouraged from attending four-year colleges because of the college cost burden, high-income students are encouraged to do so. This provides evidence that lower-income students, with the exception of the lowest income bracket—whose college enrollment rates are the lowest—are being forced to bear more of the responsibility for paying for college than are high-income students. As in the case of race, this problem is only exacerbated when family contributions are considered. Thus, one could argue that the financial aid system least favors moderate-income students because the probability that they receive family contributions is far less than that of middle-income students. In line with this, Sallie Mae (2011) reports that among high-income students, 43% of the cost of college is paid through family income and savings, with an additional 8% being paid through family loans. That means that over half of the cost of college for high-income students is paid for through family contributions. In contrast, among low-income students only about 25% of college costs are paid for by family contributions (Sallie Mae, 2011).²

Student Loans Do Not Increase College Completion Rates

We have discussed in this chapter some ways the student financial aid market affects college financing of students from different income brackets. Such questions are important for evaluating the extent to which the current financial aid system facilitates or mitigates education's equalizing powers. Perhaps even more important, however, are questions about whether the way students pay for college affects their educational experiences, particularly given that the accumulation of knowledge leading to a college degree is surmised to be the most critical piece of education for purposes of equalization.

In this respect, research suggests that, after a certain level, student loans might not produce the desired effect of increased enrollment and graduation rates. After conducting an extensive review of student loans, Heller (2008) concludes that there is very little evidence to suggest that loans improve children's college outcomes. Further, Cofer and Somers (2001) suggest that larger numbers of student loans are counterproductive and fail to meet the goal of making college accessible to more students, while smaller loan amounts might have positive effects. Building on Cofer and Somers (2001), evidence suggests that the right dollar amount of loans for undergraduates might be about \$10,000. For example, Dwyer, McCloud, and Hodson (2012) find that debt below \$10,000 has a positive relationship with college completion, while debt above \$10,000 has a negative relationship with college completion for the bottom 75% of the income distribution (the vast majority) in their study (also see Zhan, 2012, 2013). Similarly, Gicheva (2011) finds that an additional \$10,000 in student debt reduces the long-term likelihood of marriage, perhaps by affecting students' economic well-being postgraduation. Minicozzi (2005) finds evidence that once student debt increases from \$5,000 to about \$10,000, wage growth four years after graduating from college declines by 5%.

FIGURE 2. Savings for College Are Associated With Higher Graduation Rates



The reason for the diminishing positive benefits of student loans above \$10,000 might be at least in part because of many students' aversion to taking on large amounts of debt to pay for college. For example, prior research suggests that because of low-income students' aversion to borrowing, student loans may be a more effective strategy for middle- and high-income students (Campaigne & Hossler, 1998; Paulsen & St. John, 2002). Similar findings exist with regard to race. Perna (2000) finds that student loans have a negative effect on enrollment at a four-year college for Black students, and she attributes this in part to an aversion to borrowing. The reason for the diminishing positive benefits of student loans postcollege or upon leaving college might have to do with credit constraints that are associated with having high student debt, a topic we discuss later in this chapter.

In sum, research suggests that after a certain level, student loans might not produce increased enrollment and graduation rates. If this is true, simply continuing to increase the dollar amount of loans available to students might actually decrease equity.

Student Loan Debt Affects Future Financial Health

Education's role as an equalizer extends beyond the opportunity for individuals to attend and graduate from college to their ability to achieve financial self-sufficiency and move into or remain in the middle class. Unfortunately, student loan debt often is a serious impediment to this final goal.

The U.S. Department of Education (2012a) finds that the national two-year student loan default rate was 9.1% in 2010; over a three-year span it was 13.4%. It is not surprising that students from higher-income households are less likely to default (Woo, 2002). Their families might be able to provide a safety net for them when personal income fluctuates, something that is not available to lower-income students. For default, as for educational outcomes, higher amounts of debt seem to be worse than smaller amounts. The higher the amount of debt students graduate with, the more likely they are to default on their loans (Schwartz & Finnie, 2002). These findings are particularly significant given the increases in average debt levels, in correspondence with rising college costs, as described above.

However, even when students do not default, delinquency can damage the overall health of households' balance sheets. Student loans are delinquent when a borrower becomes 60 to 120 days late, and delinquent accounts are reported on students' credit scores. According to Cunningham and Kienzl (2011), 26% of borrowers who entered repayment in 2005 became delinquent on their loans at some point but did not default. About 21% of these borrowers did not pay back their loans to get out of delinquency, but instead, they used deferment (temporary suspension of loan payments) and/or forbearance (temporary postponement or reduction of payments for a period because of financial difficulty) to alleviate the problem temporarily (Cunningham & Kienzl, 2011). In total, they find that nearly 41% of borrowers suffered the negative consequences of delinquency or default.

Delinquency and default also have negative consequences for society as a whole. For example, the U.S. Department of Education paid \$1.4 billion in 2011 to collection agencies to track down students who are delinquent or in default (Martin, 2012). High percentages of students either becoming delinquent or defaulting have led some in the popular media to speculate whether student loans represent the next financial crisis for America (e.g., Cohn, 2012). Certainly we have seen in recent economic history the macroeconomic effects of many millions of Americans highly leveraged in a credit market.

The effects extend not only to the students but also to their families as well, because parents often cosign on student loans. Cosigners are equally liable for paying back student loans, and defaulted loans show up on their credit reports as they do for students. According to the Federal Reserve Bank of New York, about 2.2 million Americans age 60 or older owed \$43 billion in federal and private student loans in 2012, up \$15 billion from 2007 (Greene, 2012). Among student loans held by Americans age 60 or older, 9.5% were at least 90 days delinquent. This is up about 7.4% from 2007. Even without defaulting, student loans still show up on the credit reports of cosigners, which can make it hard for the cosigner to qualify for a loan to buy a home, for example. While parents may be helping their children to pay off large outstanding student loan balances, this ongoing debt could impair their own ability to save for their retirement, just as younger families may find it difficult to save for their children's future college educations or to prepare for their own retirements while they are still paying off their outstanding student debt.

Even when individuals are not delinquent and do not default on their loans, having outstanding student debt may still negatively affect the financial health of households (e.g., Gicheva, 2011; Minicozzi, 2005; Mishory, O'Sullivan, & Invincibles, 2012). For instance, Rothstein and Rouse (2011) posit that credit constraints after college can represent a source of substantial debt effects on postcollege outcomes. Since recent college graduates' annual earnings are usually much lower than they will be during prime earning years, most young adults with student loan debt are forced to rely on credit as a key mechanism for purchasing wealth-building items like a home (Keister, 2000; Oliver & Shapiro, 1995). In America, homes

are the main source of wealth accumulation for the middle class (Mishel, Bivens, Gould, & Shierholz, 2013). Mishel et al. (2013) find that home equity makes up 64.5% of all U.S. wealth. However, credit constraints force young adults with outstanding student loans to delay purchasing a home. Mishory et al. (2012) find that the average single student debtor would have to pay close to half of his or her monthly income toward student loans and mortgage payments. As a result, the debtor would not qualify for an FHA loan or many private loans (Mishory et al., 2012). More specifically, Stone, Van Horn, and Zukin (2012) find that 40% of students graduating from a four-year college with outstanding student loan debt delay a major purchase such as a home or car. Students with outstanding student loans not only delay significant financial outlays, they also may delay marriage (Gicheva, 2011) and have reduced earnings (Minicozzi, 2005). Therefore, we posit that outstanding student debt may make access to credit even less likely postcollege and may affect households' financial well-being and family formation, even when student loans are in good standing.

Basic descriptive data show how outstanding student debt—whether in delinquency, default, or neither—weakens the ability of education to play the role of the great equalizer in America. Elliott and Nam (2013b) find that median net worth in 2009 for households without outstanding student loan debt is nearly three times higher than it is for households with outstanding student loans (\$117,250 versus \$42,800, respectively). Though slightly smaller, this pattern holds true for 2007 net worth data as well (\$149,022.50 versus \$68,427.17). These descriptive data tell a simple story of households with student loans accumulating far less wealth postcollege than households without student loans, even when they have both attained the same level of higher education. This pattern remains after controlling for other demographic factors: outstanding student loans are associated with having lower net worth. For example, they find that a household with a median net worth in 2007 (\$128,828) and with outstanding student loans is associated with a loss of about 54% in net worth in 2009, compared to a household with similar levels of net worth but no student debt.

The effects of student loans on students' long-term financial health appear to be more severe for lower-income households than for higher-income households. This is a story similar to the one we saw with change in net worth. While households at the 15th percentile of net worth in 2007 with outstanding student debt lost less net worth (\$5,017.26) than did similar households at the 50th percentile (\$69,976) from 2007 to 2009, the loss for the 15th percentile represents 285% of their net worth in 2009, whereas it only represents 54% for the 50th percentile. In addition, Elliott and Nam find that higher amounts of debt result in greater net worth losses. They also find that living in a household with a four-year college graduate with outstanding student debt is associated with a net worth loss of about 63% (\$185,995.90 less), compared to living in a household with a four-year college graduate with no outstanding debt.

The findings reviewed in this section suggest that student loans reduce the ability of education to serve as an equalizer in American society. Restoring this vision, then, may require rethinking how students gain access to the higher education that is supposed to be the gateway.

CSAS MIGHT MAKE LOANS MORE EFFECTIVE

Evidence suggests that loans combined with grants or scholarships might be a more effective strategy than loans by themselves. For example, Hu and St. John (2001) examine different types of financial aid and find that, when combined with grants, loans have a more positive effect on persistence than do loans only

across different racial groups. This led Heller (2008) to conclude, “If grant aid were proportionally higher, then loans might provide more of a positive impact on college participation” (p. 49).

However, due to fiscal constraints and the personal responsibility framing of higher education benefits discussed above, there might be little political support in the near future to increase the number of scholarships and grants available to students. Given this, there may be need for an innovation in financial aid that combines loans and CSAs. CSAs are a policy vehicle for allocating intellectual and material resources to low- and moderate-income children. Unlike basic savings accounts, CSAs leverage investments by individuals, families, and, sometimes, third parties (e.g., initial deposits, incentives, matches). CSAs appear to align well with the ideal of personal responsibility because they require students and their families to help pay for college by saving. However, unlike the current approach, which often forces students and families to take on high-dollar debt to fulfill their college cost obligations, CSAs promise some significant benefits to children before, during, and after college.

ASSET-BASED STRATEGIES AND THE PROMISE OF HIGHER EDUCATION

Educational achievement is worth striving for and is the best-known lever for equality and prosperity. However, given the growing gap in educational attainment by family income, the current education system—and higher education, in particular—does not provide poor children with the same opportunity for economic mobility that it does for higher-income children (Haskins, 2008). Confronting this gap has never been more important than today. As American college graduates encounter an increasingly globalized economy, U.S. higher education policies need to go beyond focusing on how to increase college enrollment and graduation. We must turn to enhancing opportunities for students to increase their self-efficacy and expectations related to educational achievement and for their families to prepare in advance financially for college. We also must consider whether our policies place college graduates in a strong position to succeed financially as young adults as well.

Asset-building strategies may be a way to make progress on all of these goals and maximize the benefit of going to college. For example, as college debt skyrockets, adults receive less of a financial return on their educational investment. Having assets may help to reduce the debt burden on students and their families, and thus increase the value of a college education. In addition, if family savings correlate with better student engagement at an early age, saving may allow them to take full advantage of the primary and secondary education they receive and position them for greater college achievement. Given the relationship between engagement and academic attainment, the prospect of affecting children’s orientation toward their education for relatively small initial investments deserves greater attention. Also, if having savings as a child is associated with higher rates of saving throughout adulthood, children may be more likely as adults to maximize the financial benefit of having a college degree. See Table 1 for a comparison of a student loan financial aid strategy to an asset accumulation strategy.

TABLE 1. Snapshot Comparing a Debt-Dependent Financial Aid Strategy to an Asset-Dependent Strategy

	Precollege Educational Outcomes	College Access Outcomes	College Completion Outcomes	Postcollege Financial Outcomes
Loans	Not applicable; college loans are designed to be a college access intervention.	Extensive reviews suggest findings can be considered mixed at best (e.g., Heller, 2008).	There appears to be a negative association between loans and college completion above \$10,000 (Dwyer et al., 2012; Zhan, 2012).	Negative effects, associated with delays in marriage, delays in purchasing cars and homes, lower credit scores, less net worth.
Assets	Mixed success with respect to improving reading outcomes; a more consistent and positive relationship is found between assets and children's math scores. Assets also appear to have positive associations with a number of other precollege educational outcomes such as GPA and high school graduation (see Appendix B).	Researchers find a consistent positive association between assets and college access (see Appendix C).	Researchers find a consistent positive association between assets and college completion (see Appendix D).	Emerging research finds a consistent positive relationship between children's savings and young adult financial outcomes (see Appendix H).

If one financial aid model (our current, loan-based model) helps children pay for college only when they reach college age, while another (a hybrid loan and asset-based model) has the potential for multiple positive effects beyond paying for college, the better investment becomes obvious. We have a collective interest in the educational attainment of American children. Innovative ways to help children and their families accumulate savings to pay for college, while building on the positive effects of fostering individual ownership and students' stake in higher education, deserve our attention.

KEY POINTS

Shifting the cost burden results in disparate impact.

- The cost burden in higher education is shifting from society to individual students and families, with disproportionate effects on low-income and first-generation college students and students of color.
- High student-loan debt has negative effects on students' college enrollment, persistence, and graduation and on economic security after graduation. There is also some evidence that debt affects student enrollment decisions, as cost burden influences institutional choice.

Not all financial aid is created equal.

- Asset-based policies such as children's saving accounts (CSAs) may be able to deliver superior educational outcomes for students and align with the recent policy emphasis on personal responsibility for college costs.
- Asset-based supplements to student loans can improve those loans' effectiveness in better educational outcomes and prevent some of the most negative effects of student-loan debt. Reducing the amount of student borrowing is critical, as evidence suggests that the most significant negative effects of student loan debt begin to occur once total loans reach approximately \$10,000.

A combination of assets and loans may result in better outcomes.

- The greatest disparities in postsecondary educational attainment by race and income are in college completion, not in enrollment.
- Assets to pay for college significantly improve college completion rates.
- Asset-based financial aid strategies may help to supplement loan-based policies, reduce student debt, and increase college completion rates for disadvantaged student populations.

CHAPTER 2

INSTITUTIONAL FACILITATION AND CSA EFFECTS

by William Elliott and Margaret Sherrard Sherraden

OVERVIEW

Normative expectations (norms) provide children with initial information about how the world ought to work, before they have accumulated experiences themselves. Once children enter school, they begin to test normative expectations. Children usually begin with high self-efficacy (a positive view of one's ability to accomplish goals), but around fourth grade, children begin to make efficacy judgments based, in part, on a new awareness that there are differences in access to institutional resources.

At this point, children begin making more mature judgments that include both self-efficacy and institutional efficacy (the extent to which institutions facilitate achievement of their goals). This limits the range of behaviors they perceive as available to them, and efficacy judgments become more predictive of behavior. They repeat making judgments and performing a pattern of behaviors until they feel they can accurately predict their ability to bring about future outcomes through a pattern of behavior. At this point, they form and internalize cognitive expectations.

Once they have internalized cognitive expectations as part of their identity, children act on them when they are important, align with their beliefs about their group's identity, and provide a strategy for overcoming difficulty. Because cognitive expectations only make up one aspect of identity, they can only partially explain behavior. Identities likely consist of several domain-specific (in the case of schools, academic and financial domains) cognitive expectations. When a particular identity is cued, cognitive expectations associated with that identity are emphasized, and children have an automatic psychological and, in turn, physiological response to the identity. While these responses are automatic, acting on them is not. For cognitive expectations to be changed, a change in their environment must interrupt the automatic response. By providing high institutional efficacy and predictable support of a child's self-efficacy, CSAs are one way to change the environment and, over time, cognitive expectations about college-going.

ASSETS AFFECT HOW CHILDREN THINK ABOUT COLLEGE

In his book, *Assets and the Poor: A New American Welfare Policy*, Michael Sherraden (1991) argues that asset accumulation is the key to improving the well-being of low-income families. From this perspective, well-being is a long-term, dynamic process. Accordingly, financial assets can be used to develop other types of assets, such as human, cultural, or social capital. Sherraden (1991) also believes that multiple economic and psychological effects are associated with owning assets. Specifically, he posits that assets improve household stability, increase personal efficacy and political participation, create an orientation toward the future, enable focus or specialization, and provide a foundation for risk taking. The potential for multiple effects has made assets a particularly alluring and fast-growing policy strategy for improving the well-being of low-income families.

In addition to helping children finance college, much of the interest in creating asset-building policies for children is based on assets' potential to change how children think and act. Since the majority of empirical research on assets and education focuses on the psychological effects of assets, we also emphasize them in this chapter. Theory and research on the psychological effects of assets are in early stages of development (Schreiner & Sherraden, 2007). One promising area of theoretical and research inquiry is the study of college expectations to explain the relationship between assets and children's educational outcomes (see Elliott, Choi, Destin, & Kim, 2011; Elliott, Destin, & Friedline, 2011). Reynolds and Pemberton (2001) define college expectations as children's perceptions of the subjective probability that they will be able to attend and graduate from college. Over time, some asset researchers have moved toward a more psychologically grounded perspective that focuses on how children see themselves in a future state—in this case, a future in which they attend college (Destin, 2013; Elliott, Choi, et al., 2011; Oyserman, 2013).

Our discussion of how assets affect how children think and act and develop a college-bound identity is grounded in identity-based motivation (IBM) theory (Oyserman, 2007, 2009). We view the concept of self-efficacy through

KEY TERMS

Cognitive Expectation: An outcome expectation that is gradually constructed as part of the process of testing normative expectations and evaluating an accumulating set of facts or life experiences (see Gould, 1999).

College-Bound Identity: An identity rooted in an expectation of attending college. Institutions provide contextual clues that nurture or activate this identity.

Institutional Efficacy: An individual's beliefs about the effectiveness of using institutional resources to produce designated levels of performance that exercise influence over events that affect a person's life.

Institutional Facilitation: The process by which institutional efficacy promotes healthy self-efficacy beliefs and the development of positive future identities (e.g., college-bound).

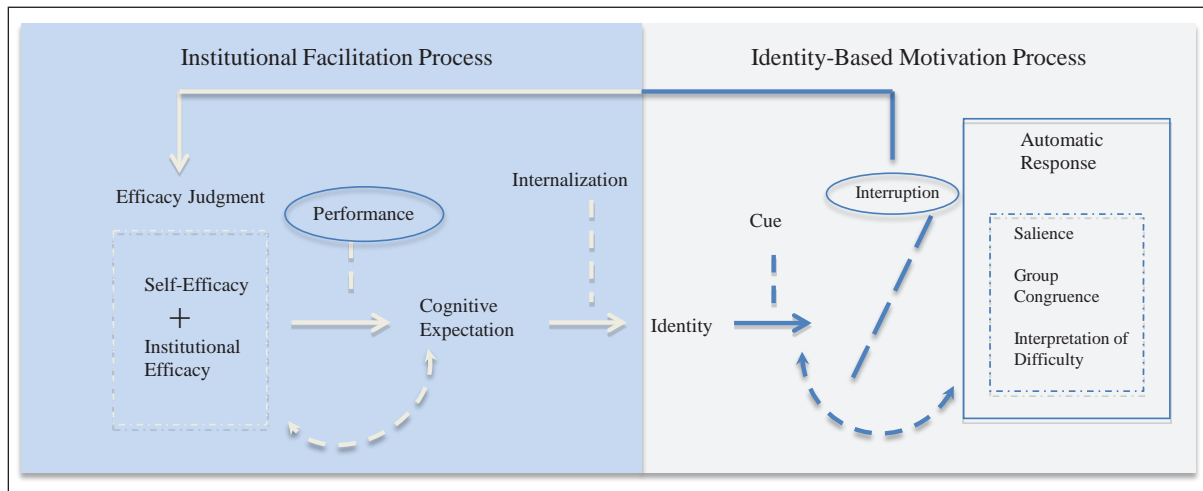
Internalization: The reconstruction of modeled behaviors through the use of language.

Normative Expectations: Norms given legitimacy by mainstream values and associated with a set of socially prescribed behaviors and expectations shared by most people within a society (Gould 1999; Luhmann & Albrow 1985; Merton 1957).

Self-Efficacy: An individual's beliefs about the effectiveness of using individual resources to produce designated levels of performance that exercise influence over events that affect their life (Bandura, 1997).

an IBM lens to develop a richer understanding of how assets can lead to high self-efficacy. We then introduce a new dimension of efficacy, institutional efficacy, to understand the qualities of institutions that support self-efficacy. Finally, the concept of institutional facilitation describes the process through which high institutional efficacy increases self-efficacy.

FIGURE 3. Integration of Institutional Facilitation and Identity-Based Motivation Theories for Understanding Asset Effects



Notes: While the whole integration process takes place in the context of institutions, the ovals in Figure 3 represent key points where institutional resources might make an important difference in determining outcomes. This suggests that a key part of performance may be how institutions augment children's effort and ability through the allocation of resources. The double-headed dashed lines represent instances where a performance is repeated several times before moving on to the next step. The dashed diagonal line with no arrows represents an interruption that causes the child to question whether the pattern of behavior associated with the internalized identity will result in the same outcome as in the past or cause the child to believe that patterns of behavior that were not previously available to him or her are now available. The opposite may also be true: patterns of behavior are no longer available because institutional characteristics have changed. Role expectations are discussed in Chapter 4.

Institutional Facilitation Process

In this model (Figure 3) we suggest that normative expectations (norms) are formed in response to experiences and provide children with initial information about how the world ought to work. They provide children with the necessary knowledge and sense of predictability to begin to investigate and influence their world. However, once children enter school, they begin to test normative expectations more extensively. When children first enter school, their self-efficacy—their belief in their ability to accomplish what they set out to do—is high. It is high in part because young children are unaware of differences in access to institutional capabilities, so they view the range of behaviors they can perform successfully as almost limitless. Around fourth grade, children begin to make efficacy judgments based on a new awareness that there are differences in access to institutional capabilities (Bandura, 1997; Schunk & Pajares, 2002). At this point, they begin making more mature judgments that include both self-

efficacy and institutional efficacy judgments. This limits the range of behaviors they perceive as available to them, and efficacy judgments become more predictive of behavior (see e.g., Bandura, 1997; Schunk & Pajares, 2002). They repeat making judgments and performing a pattern of behaviors until they feel they can accurately predict their ability to bring about future outcomes through a pattern of behavior. At this point, cognitive expectations are formed and internalized.

Identity-Based Motivation Process

Once cognitive expectations are internalized as part of an identity, children act on them when they are important, feel congruent (align with their beliefs about their group identity), and provide a strategy for overcoming difficulty (difficulty is interpreted as normal) (e.g., Oyserman & Destin, 2010). Because cognitive expectations only make up one aspect of the identity, they may only partially explain behavior. Identities likely consist of several domain-specific cognitive expectations (in the case of schools, e.g., they may consist of both an academic and financial domain). When a particular identity is cued, cognitive expectations associated with an identity are emphasized, and children have an automatic psychological and, in turn, a physiological response to the identity. While these responses are automatic, acting on them is not.

For cognitive expectations to be changed, the automatic response must be interrupted by a change in children's environments. This interruption allows children to question whether another way of viewing the outcome is available to them (e.g., seeing college change from closed to open). This model, then, helps to explain how and why asset accumulation can have significant effects on children's identities and, therefore, their educational outcomes, by illuminating the psychological changes that such savings can induce.

IDENTITY-BASED MOTIVATION THEORY: A PREDICTOR OF OUTCOMES

Asset researchers increasingly view the effects of assets on children's educational expectations through the lens of IBM theory. IBM theorists suggest that three principal components affect the relationship between self-conceptions and motivation and give significant attention to how social and cultural context drives the process. The three core principles of IBM include (a) identity salience, (b) congruence with group identity, and (c) interpretation of difficulty (Oyserman, 2007; Oyserman, 2009; Oyserman, Bybee, Terry, & Hart-Johnson, 2004;). Three principles of IBM discussed in this chapter may help explain why a CSA strategy can activate college-bound identities.

Identity Salience

Salience is the idea that children are more likely to work toward a goal when images of their own future are in the forefront of their mind. CSAs may promote salience in children with regard to college in two basic ways: First, they signal to children that college is near and requires action now, and second, they help children view college as relevant to their current context. The first is relatively easy, and current CSA programs typically address this in a number of ways, beginning with CSA enrollment itself as a signal/cue. CSA programs also may provide children with bank statements, remind them about the need to deposit money in their accounts, and provide children with access to financial education classes that link saving to their ability to pay for college. All of these activities signal to children that college is near and requires action now.

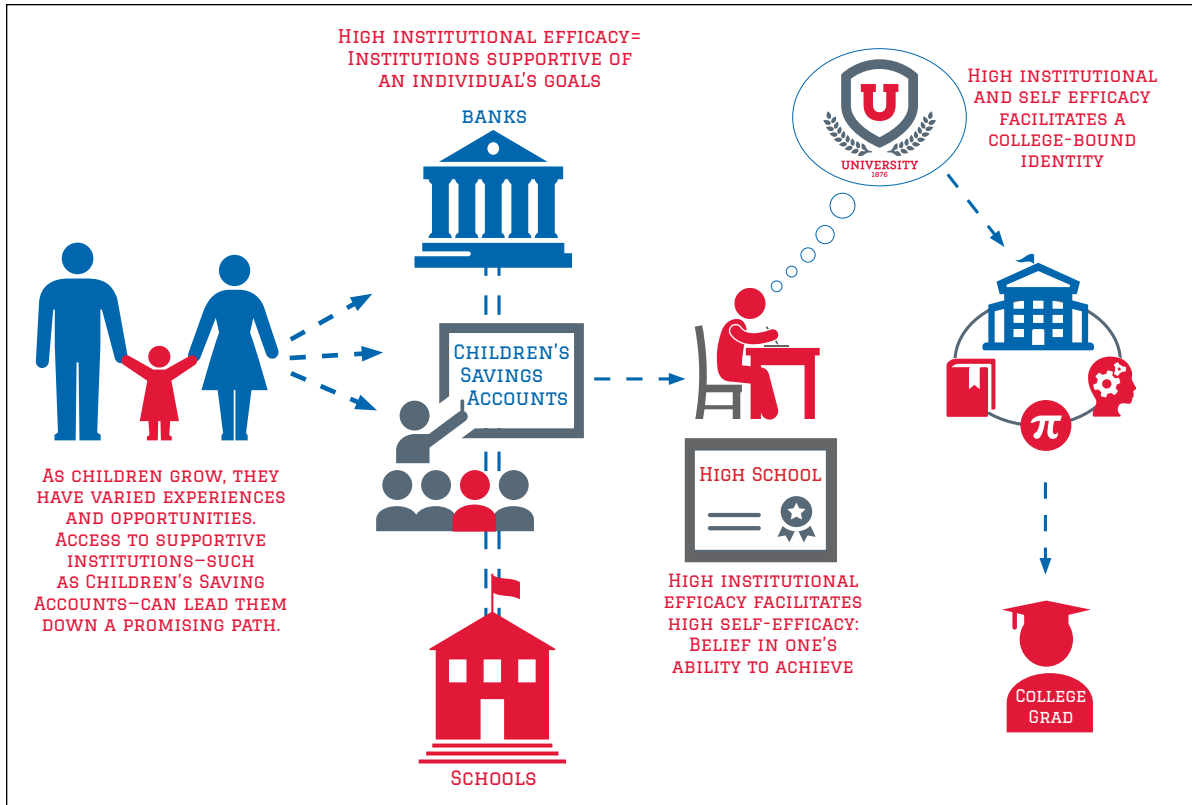
The second way CSA programs can make college feel near is by removing barriers that interfere with a child's vision of college. Traditional CSAs are modeled on Individual Development Accounts (IDAs), a structured account to help poor adults save and accumulate assets. However, IDAs typically do not allow for short-term or intermediate purchases that could remove obstacles standing in the way of long-term goals, such as financing retirement. Normally people are allowed to withdraw funds in IDAs for purchases such as buying a home, starting a business, paying for college, or retirement (Sherraden, 1991), not for their emergency or survival needs. As a result, some individuals might never be able to act on their future identity as a homeowner or retiree, because those distant identities are superseded by current pressing needs. Anyone who has ever been without food, shelter, or other basic necessities for an extended period understands how such deprivation can cloud vision or make the future appear far away and, therefore, not in need of immediate action. This might not mean that they do not want to act, only that they have limited resources and meeting basic needs is taking up most of those resources. Therefore, it might be that, for CSAs to have the largest effect on how children think about college (as near or far away), children need to be able to access some savings sooner for college to become more likely.

Structuring CSAs so that children can use savings to solve problems they encounter on their path to higher education may strengthen children's understanding of saving as a strategy with which to facilitate progress toward college. This concept is supported by findings that indicate that liquid assets or assets that are turned into cash more easily appear to be more closely associated with helping children prepare for college (e.g., Elliott, Destin et al., 2011; Huang et al., 2010).

Group Congruence

In addition to salience, IBM theory suggests that, for an identity to be actionable, that identity must also show congruence with the identity of a group with which a child identifies. Congruence with group identity occurs when an image of the self feels tied to ideas about relevant social groups (e.g., friends, classmates, family, and cultural groups). When this occurs, it reinforces the congruent personal identity. For example, there is a general perception that Black children are poor test takers, and research suggests that even some Black children believe this (Bourdieu, 1984; Steele, 1997). As a result, Black children might aspire to have an identity as a good test taker but not act on it at test time because it does not match up with their group identity as a poor test taker (Bourdieu, 1984; Steele, 1997). Similarly, children and their families might be less likely to sign up to be in a CSA program if saving does not fit their current notion of their group identity. When CSAs are not congruent with existing group identities, they must be crafted to help build new, more positive group identities that will make children more likely to act on the college-bound identity. A national CSA program might signal to children and their families that as a country, "We save, we go to college," fostering group congruence around a new, positive identity. The message, "We save, we go to college," implies group congruence, but it also implies that saving is an important strategy for paying for college. As more low-income families participate in the program, CSAs could be the basis for new identities as savers in other aspects of these families' lives. This might be a rationale for adopting opt-out programs to leverage the power of inertia to aggregate individual savings behavior into new, powerful group identities as "savers."

FIGURE 4. Role of Institutional Facilitation in Academic Success



Interpretation of Difficulty

Finally, IBM theorists highlight the importance of having a means for normalizing and overcoming difficulty. From this perspective, for children to sustain effort and work toward a self-image (such as a college-bound identity), they and their environment must provide ways to address inevitable obstacles (such as paying for college). At its core, IBM posits that children's perceptions of themselves as individuals or as group members predict which goals, strategies, and interpretations of difficulty (hard but doable; hard and not attainable) come to mind with regard to school (Oyserman, 2013).

Alignment with IBM Principles Is a Predictor of Outcomes

Research shows that IBM principles are important predictors of children's school behaviors (Oyserman & Destin, 2010). In the context of college expectations, IBM-based researchers focus on visions students have of themselves in a future state (a possible self) (Destin, 2013; Elliott, Choi et al., 2011; Elliott, Destin et al., 2011; Oyserman, 2013). When using IBM to explain the relationship between assets and expectations, college expectations serve as a proxy for what IBM researchers refer to as a college-bound identity (Oyserman, 2013). According to IBM theory, institutions can activate a child's identities. IBM theory allows for the fact that contextual cues have an overwhelming influence on college-related goals that children set and the strategies they activate to pursue college (a future goal). Institutions are one of the main providers of external cues (see North, 2005). According to Sherraden and Barr (2005), a formal institution within the applied social science context can be thought of as a type of intervention

to alter behaviors and outcomes of individuals. For example, the current debt-centric financial aid system described in the introduction is a formal institution that, for many students, makes college seem unattainable or too expensive. In contrast, a national school-based CSA program might be thought of as a type of institution designed, in part, to activate and nurture children's college-bound identities.

SELF-EFFICACY AND MULTIPLE DIMENSIONS OF EFFICACY

In the institutional facilitation (IF) framework laid out in the remainder of this chapter, IBM provides a general model of self, while self-efficacy ("I can do") and institutional-efficacy ("what I can do with the help of institutions") beliefs explain how outcome expectations (i.e., what people expect to happen) are formed and how they change. Further, self-efficacy beliefs and outcome expectations, such as children's or parents' college expectations, influence the types of imagined future identities that children form. We suggest that at different points, self-efficacy beliefs or outcome expectations are more predictive of behavior than at other points. Understanding when these points occur might be important for predicting behavior and for designing institutions that change behavior.

Self-efficacy theory was introduced first by Bandura in 1977 in his seminal article, "Self-Efficacy: Toward a Unifying Theory of Behavior Change." Bandura (1994) defines self-efficacy as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (p. 71). Building on Bandura's (1994) definition of self-efficacy, we define it slightly differently as people's beliefs about the effectiveness of using their individual resources to produce designated levels of performance that influence events that affect their lives. Including the phrase "individual resources" is significant because it specifies the dimension of efficacy under investigation and the information the social scientist is emphasizing.

A self-efficacy assessment sounds like this: "I can put forth the designated level of effort, and I have the ability to perform the task; therefore, I can conclude with confidence that I will achieve a desired outcome by investing my individual resources." If this is true, then the social scientist can assume that if the person fails, he or she will attribute that failure to a lack of effort and ability and is more likely to seek strategies that increase either effort or ability, or both. The social scientist could also expect that this individual is likely to display the characteristics of persistence, increased effort, and coping skills (Bandura, 1977, 1986, 1997).

As a result of self-efficacy's emphasis on individual resources, the individual is seen as having the capability to change his or her life circumstances, sometimes referred to as "personal causality" (Franzblau & Moore, 2001, p. 85; Scheier & Carver, 1987). Because of self-efficacy's focus on the individual as the only significant agent of change, other dimensions of efficacy, such as institutions, are minimized in current perceived-efficacy literature.

However, the individual does not always achieve a sense of efficacy through direct control, nor can he or she; this assumption is made often in theories of perceived control (Skinner, 1996). As Sen (1999) writes, individuals typically do not have direct control:

In modern society, given the complex nature of social organization, it is often very hard, if not impossible, to have a system that gives each person all the levers of

control over her own life. But the fact that others might exercise control does not imply that there is no further issue regarding the freedom of the person; it does make a difference how the controls are, in fact, exercised. (p. 65)

To integrate a policy like a CSA as part of the self, it must be accessible to the individual and have sufficient power to create change, and the individual must know how to use the power generated by the agent to achieve his or her desired outcomes. In the case of CSAs, this suggests that they must be accessible to children, that the resources CSAs provide must be sufficient to create change, and that children must know how to use the resources CSAs generate to help them pay for college. The idea that CSAs must be accessible aligns with proposals to make accounts universally available to all children (Boshara, 2003; Sherraden, 1991), and research that shows that including an auto enrollment mechanism (with an opt-out feature) is important to assure that all children end up with an account (e.g., Nam, Kim, Clancy, Zager, & Sherraden, 2013).

Part of the power of having a CSA might be what children think they will be able to save in the future (Sherraden, 1990). In addition to expected savings, another potential source of power that CSAs provide stems from children's belief that saving is a way to pay for college (Elliott, Sherraden, Johnson, & Guo, 2010), or is a complement to debt-centric financial aid—CSAs are a bridge to affordability. Additionally, having a CSA brings children into the formal financial services sector in a way that might make other resources available. For example, a CSA might provide children with broader access to credit markets they can also use to pay for college. Last, the idea that children must know how to use the power generated by the agent suggests that financial education classes and college preparation assistance might play an important role in determining the effectiveness of CSA programs for empowering children or augmenting their use of personal resources (Sherraden, Johnson, Guo, & Elliott 2011; also see Elliott & Kim, 2013).

This process by which external agents or policies become integrated into the self suggests that self-efficacy is only one dimension of a broader concept of efficacy. The dimensions of efficacy are derived from an individual's perception of what constitutes a resource. For an individual to see a resource as a source of power, he or she may have to perceive it as being legitimate, helpful, and responsive (e.g., Antonovsky, 1979). In other words, "when financial products are accessible, affordable, financially attractive, easy to use, secure, and reliable, they are more likely to appeal to low-income households" (Sherraden, 2010, p. 8). If a financial product lacks these characteristics, it is unlikely to function as a resource in efficacy assessment for the individual. We now turn to a more robust discussion of the role that institutions play with regard to efficacy.

INSTITUTIONAL EFFICACY AND CHANGING COGNITIVE EXPECTATIONS

The American Dream is fueled by the idea that if people put forth enough effort and have sufficient ability, they will be able to obtain desired outcomes through normative behaviors. This idea grew out of the rich and plentiful land of America and the institutions that were established early in the nation's history. This combination supported the belief that anyone could access the resources needed to achieve desired outcomes.³ Deeply rooted in the fabric of American culture, the American dream is something that research suggests Americans of all socioeconomic classes believe in (Hochschild, 1995; Rank, 2004; Wilson, 1987). The idea that people who have supreme confidence in their own individual resources are

most likely to achieve success is central to maintaining the belief in the institutions of America. Thus, self-efficacy reinforces our belief in the American dream and the values that underlie it, even while it fails to remedy structural injustices that block some Americans' access to that same American dream.

Institutions might be key to individuals' self-efficacy because they allow people access to resources and act as an extension of the way humans process information (North, 1990, 2005). When talking about the role of institutions in the life of an individual, Neale (1987) states, "One may speak of individualism or individual motives, but it is within the constraints and meanings given by institutions that the individual feels and responds and plans" (1987, p. 1179). Building on self-efficacy theory, the focus is on how institutional responses affect children's perceptions of their own personal efficacy.

Institutional Efficacy: A Key Dimension of Efficacy

Although the idea that institutions are a dimension of efficacy has been around in one form or another for a number of years, we propose that institutional efficacy, as a key dimension of efficacy, has not been captured adequately. Theorists have postulated that income positively affects efficacy (Duncan & Liker, 1983), that assets positively affect efficacy (Sherraden, 1991), and that socioeconomic status positively affects efficacy (Gecas, 1989). Institutional efficacy, however, takes into account systemic differences in the ways institutions respond to different groups of people in society (see, e.g., Shapiro, Meschede, & Osoro, 2013). We define institutional efficacy here as people's beliefs about the effectiveness of using institutional resources to produce designated levels of performance that influence events that affect their lives. Institutional efficacy focuses on children's perceptions of their relationship with the institutions in society and their confidence in those institutions to augment their ability as it does others'. If the institution is consistently unresponsive—does not provide them with the power they need over required resources to perform a task successfully—the child might develop low institutional efficacy. These experiences may be especially meaningful in the earlier years of life. So, the degree to which children perceive that their CSA is an effective tool for paying for college may depend on the degree to which the children perceive that they can use the CSA to augment their ability to save. This implies that things like incentives and matches might be important mechanisms for building confidence in CSAs as an effective tool for paying for college.

Institutional efficacy expands agent-means relations to include access to institutional resources. Agent-means are concerned with whether individuals believe they have access to particular means believed to be necessary for performing a task (Skinner, 1996). Agent-means relations within self-efficacy theory were originally limited to beliefs about whether particular means for achieving an outcome are available within the resources of the self, narrowly defined as effort and ability (Bandura, 1977; Skinner, 1996; Skinner, Chapman, & Baltes, 1988). However, research has shown that agent-means relations can be enlarged to include perceptions about the degree to which an individual has access to other means such as powerful others, luck, and societal resources (Skinner, 1996; Skinner et al., 1988; Skinner, Wellborn, & Connell, 1990). This is also similar to how Nussbaum (2000) discusses capability. According to Nussbaum (2000), the idea of capability takes into account a person's internal capabilities that develop "usually with much support from the material and social world" (p. 82).

Assessing a person's level of institutional efficacy might be a way of determining an individual's perceptions about access to institutional resources. Unlike self-efficacy, wherein people reflect on the part

of a task they perceive as being the result of their own effort and ability, institutional efficacy judgments take place when people reflect on the part of a task they believe requires access to institutional resources in order to perform.⁴ This poses particular challenges with regard to college access, as research shows that low-income children are much less likely to know that financial aid is available (Institute for College Access & Success, 2008). As a result, they are more likely to overestimate the importance of institutional resources in interpreting their own efficacy. There is some evidence of this. For example, researchers find that low-income parents are more likely to overestimate the cost of college (Grodsky & Jones, 2007; Horn, Chen, & Chapman, 2003), and low-income children are much more likely to think that cost is a barrier to attending college (ACSFA, 2010).

IBM experimental research may provide an example for how lack of institutional efficacy may curtail engagement in school. For example, Destin and Oyserman (2010) propose that children with fewer assets may lower their expectations for school success and plan to engage less in school if they feel that the path to attain the desired self (i.e., college-bound self) is closed. They tested this proposition by experimentally manipulating children's mind-set about college as either closed or open. They did this by randomly assigning classrooms to a closed path (i.e., college is expensive and outside of my control) or an open path (i.e., need-based financial aid can pay for college). The children in the closed path were read a simple text that indicated that the average college tuition costs \$31,160 to \$126,792, while the open-path group was read a text that did not discuss the cost of college but instead informed them about need-based financial aid opportunities. They found that children assigned to the open-path condition were significantly more likely to expect higher grades and planned to spend more time on homework than were those assigned to the closed-path condition. This example clearly illustrates the link between educational engagement and children's perceptions about their ability to access external resources.

Low-income and minority children are more likely to develop low self-efficacy and to experience low institutional efficacy. Researchers believe that, somewhere between grades one and four, children begin to form more realistic perceptions of their self-efficacy (Eccles, Wigfield, Harold, & Blumenfeld, 1993; Harter, 1992; Harter & Pike, 1984; Paris & Byrnes, 1989; Wigfield, et al., 1997). By grade four, children also begin to distinguish between occupational aspirations and expectations (Gottfredson, 1981), state preferences for jobs that reflect their own social class standing (Henderson, Hesketh, & Tuffin, 1988), and understand status differences among occupations in a manner similar to adults (McGee & Stockard, 1991).

What happens during this period that causes children to make more realistic assessments about their self-efficacy and their educational and labor market possibilities? We suggest that, between grades one and four, children develop a more complex understanding of outcomes, one that includes not only self-efficacy but also institutional efficacy. This occurs as they begin to understand that not everyone has the same access to institutional resources. Over time these types of experiences may reduce the belief that low-income children have in their families as an important informal institution for providing financial resources. These doubts extend to formal institutions, as well, as they observe and experience how formal institutions respond to different groups of people. For example, Shapiro et al. (2013) find that a \$1.00 increase in income later translates to a \$5.00 increase in wealth for Whites, but only \$0.70 for Blacks.

Over time, disadvantaged children perceive the institutions that facilitate and perpetuate such disparities as less supportive of their own development.

Given the unequal treatment low-income and minority children receive, there is a need for formal institutions that are tailored to meet their needs. CSAs can be such an institution. They respond to low-income and minority children's specific needs by providing them with initial deposits, matches, incentives, and financial education. In contrast to a traditional bank account, earned interest is not the only way for deposits to grow. For example, some CSAs offer a 1:1 match, which means children would receive one dollar for each dollar deposited in their accounts. Others offer benchmark deposits that celebrate academic and other milestones during childhood. Moreover, the financial education classes that are usually part of CSA programs instruct children and their families on saving and how to use savings effectively.

We argue that CSA programs should begin for low-income children around the time of initial school entry or, if possible, at birth. First, the earlier children start to save, the more likely they are to accumulate significant savings. Second, there are points in a child's life when a policy is more likely to reach most children. At birth or during initial school registration are two points when CSA recruitment is more likely. Third, having a CSA from birth might help children see that saving for college is normative. Fourth, owning a savings account for college might help children to avoid forming low institutional efficacy in the first place.

The Role of Outcome Expectations

When talking about the relation between controllability and outcomes, Bandura (1997) comments:

Where performance determines outcome, efficacy beliefs account for most of the variance in expected outcomes. When differences in efficacy beliefs are controlled, the outcomes expected for given performances make little or no independent contribution to prediction of behavior. (p. 24)

This is important in the debate about whether outcome expectancies or efficacy beliefs are more predictive of behavior (Eastman & Marzillier, 1984; Kazdin, 1978; Scheier & Carver, 1987). Self-efficacy theory holds that efficacy beliefs are more predictive of behavior in equitable circumstances in which performance is the deciding factor in outcomes. That is, "Rather, where efficacy beliefs foretell the expected outcomes, the outcomes become a redundant predictor" (Bandura, 1997, p. 24). However, when performance is not perceived as the deciding factor, outcome expectations are a more accurate predictor of an individual's behavior than are efficacy beliefs. Self-efficacy theory is based primarily on the assumption that a "normal contingency" exists (Scheier & Carver 1987, p. 198), a level playing field on which performance is the primary predictor of outcomes.

However, there are differences in how strong these beliefs are (Hochschild, 1995). Hochschild argues that Black Americans, for example, "believe in the American dream—but only sort of" (p. 174). What disadvantaged groups learn to doubt, through experience, is that their performance is the primary explanation for the outcomes they experience. Thus, outcome expectations are more likely to predict behavior than are efficacy beliefs. This is due to the internal transaction costs (i.e., use of personal resources) associated with making efficacy judgments. Once people have sufficient evidence that effort and ability will result in a similar outcome within a particular domain such as school, they stop making efficacy judgments and act based on what they expect the outcomes to be (Bandura, 1997) due to their limited personal resources for making such judgments (Bargh & Chartrand, 1999).

Normative and Cognitive Expectations

We consider two types of outcomes expectations: normative and cognitive. Normative expectations are norms legitimated by mainstream values and associated with a set of socially prescribed behaviors and expectations most people within a society share (Gould, 1999; Luhmann & Albrow, 1985; Merton, 1957). College as a desired outcome is an example of a normative expectation. Researchers find that most children expect to attend college (Elliott, 2009; Kao & Tienda, 1998; Mello, 2009; Wildhagen, 2009). Normative outcomes are what people should be able to expect when they act on or fulfill a normative expectation. Normative expectations are embedded in the institutions of a society.

According to Luhmann and Albrow (1985), normative expectations are counterfactually formed—that is, they are based on possible future occurrences, not experience—and provide people with initial beliefs about how the world works. Young children initially do not question normative expectations because they do not yet have the ability to question them. Normative expectations provide children with the necessary knowledge and sense of predictability (if I do X, I can expect Y to happen) to begin to investigate, question, and influence their world. By acting on socially learned patterns of behavior, children begin to test these normative expectations (Rosenbaum, Reynolds, & DeLuca, 2002).

At a very young age, the main criterion children have for behaving in a certain way is whether they believe they have the ability to perform a task. If children can reach the cup, they can see no reason why they should not grab the cup. This highly exaggerated sense of self-efficacy in very young children (Coster & Jaffe, 1990; Dweck, 1989; Flink, Boggiano, Main, Barrett, & Katz, 1992) is important for development because it encourages them to try things they would not try otherwise. It is not until children begin to have meaningful interactions with institutions outside of the family that they begin to realize that they are a part of a larger society and they require access to institutional capabilities to perform some tasks successfully. The second type of outcome expectation is cognitive expectations, which emerge in response to a person's experiences in achieving goals (Gould, 1999; Luhmann & Albrow, 1985; Merton, 1957). Cognitive expectations are gradually constructed as part of the process of testing normative expectations and evaluating an accumulating set of facts, or life experiences. Cognitive expectations do not typically match disadvantaged individuals' aspirations. Aspirations are values that indicate the desire for behaving in ways that align with norms (Gans, 1968). Disadvantaged individuals often still hold normative expectations, such as attending college, but are forced to adopt less desirable patterns of behavior and values ("subcultures") to support these behaviors because they lack access to institutional capabilities necessary for achieving normative expectations (Gans, 1968; Gould, 1999; Rodman, 1963). For example, low-income and minority students are likely to experience a gap between what we call their college-bound normative expectations and their actual educational attainment (Schneider & Stevenson, 1999; Trusty, 2000).⁵ However, as Gans (1968) points out, one of the important distinctions that social scientists must make when attempting to determine how strongly cognitive expectations are held is how people feel about their behavior. Would they prefer other forms of behavior if they had real opportunities and chances for success? What this suggests is that cognitive expectations are malleable.

The family, an informal institution, plays the main role in socializing children they enter school and, as a result, children might be primed to view schools and maybe even banks or saving in a particular way. An example of how disadvantaged children can sometimes be primed to view school in a negative light is found in research conducted by Ogbu and Simons (1998). They found that Black school children's

parents often send a double message to their children. On the one hand, they tell them to work hard in school to be successful—a normative expectation. On the other hand, parents' attitudes and comments may also send a message of mistrust about the way school will treat their children and school's ability to contribute to future economic success—a reflection of a negative cognitive expectation resulting from their own experiences. Even after cognitive expectations have been formed, however, normative expectations remain embedded in people's minds. They serve as a standard for how the world should work.

The Role of Institutions in the Formation of Cognitive Expectations

We argue that, like other children, low-income children aspire to mainstream values. To explore these values, they regularly test normative expectations against their experiences. When experiences do not align with their normative expectations, they may develop behavioral adaptations—behaviors that they will continue to replicate as long as institutional capabilities do not change. When children are confronted with a lack of institutional capabilities over an extended period, they learn to emphasize the influence of institutional response (particularly if the events happen during the critical childhood years). When disadvantaged children demonstrate atypical behaviors, they are responding logically to their situations, not replicating “cultural” behaviors as suggested by Oscar Lewis (1966). As long as disadvantaged children aspire to mainstream values, they will continue to test normative expectations.

Once children begin testing normative expectations and become aware of the differences in access to institutional capabilities, they form beliefs about their own institutional efficacy (Erikson, 1963; Gottfredson, 1981). At this point, some children develop doubts about their own ability to control events in their lives. From these beliefs, children might make predictions about their ability to bring about future outcomes through a pattern of behaviors—cognitive expectations. To the degree that children believe that the reason normative outcomes fail to materialize is because of their inability to access institutional capabilities, they form cognitive expectations that either resemble normative expectations or diverge from them significantly. If they diverge, that is, if they believe that external factors are the reason for their failure and not their own effort and ability, they form negative cognitive expectations and college might appear far away.

After the child forms this more complex and negative understanding of the world, self-efficacy is no longer sufficient for determining how to behave. The child begins to use outcome expectations for this purpose (Scheier & Carver, 1987), more specifically, cognitive expectations. While self-efficacy provides a useful tool for examining the resources of the self, institutional efficacy might shed light on the internalized relationship to institutions and provide a link between an individual's perception about institutional access and his or her level of effort and ability. The child determines the range of viable choices using self-efficacy and institutional efficacy.

Elementary schools provide young children with their first real experience with formal institutions as a social force that shapes their social self. During the early school years children begin to see themselves as part of a larger society, in which ability and effort are only part of the story, and that institutions either enable or constrain their ability to achieve desired outcomes (Erikson, 1963). Erikson (1963) describes this stage of development, “Thus the inner stage seems all set for ‘entrance into life,’ except that life must first be school life, whether school is field or jungle or classroom. The child must forget past hopes and wishes, while his exuberant imagination is tamed and harnessed to the laws of impersonal things ...” (p. 258).

Children confront, in Erikson's words (1963), "differential opportunity" when they enter school (p. 260). Based on observations and interviews with a group of five-year-olds to ascertain their perspectives on school, Sherman (1997) finds that children already know by age five that school is necessary for future success in the labor market. This leads her to conclude, "Our social reality is created both as part of individual understanding or interpretation of something and through an awareness and acceptance of societal norms" (Sherman, 1997, p. 124). Children quickly learn to see the world through not only an individual lens but also through a social lens emphasizing the importance of group congruence.

The pivotal role schools play in forming institutional efficacy might be part of a rationale for school-based CSA programs, at least for programs that focus on improving children's educational outcomes. If children believe they lack access to the institutional capabilities necessary to perform well in school—and eventually to attend college—they might be more likely to become discouraged and to disengage from academic activities. School-based CSA programs might help children build institutional capabilities. This may offer congruency to children, another reason to believe that schools support their investment of effort and ability.

Identity as Internalized Cognitive Expectations

Once cognitive expectations are internalized and become part of a child's identity, when identity is cued by something in the environment, the child will likely have an automatic response to the cue. That is, patterns of behavior captured in cognitive expectations that come to be associated with an identity might be brought to the forefront of the mind subconsciously, like a reflex reaction. This automatic response occurs because the child no longer needs to make an efficacy judgment in response to circumstance. The cognitive expectation and the associated pattern of behavior (the pattern of behavior might actually be not to act or to disengage) have been internalized as part of an identity.

The use of cognitive expectations can be a much more efficient way to determine courses of action and are a necessary part of healthy functioning. Once cognitive expectations are internalized and integrated into an identity, we suggest the child's automatic response must be interrupted for change to occur. The child must have a different experience with performing behaviors, or the child must be given a reason to believe another identity is available that was not (or that she perceived was not) available before.

Similar to Vygotsky's (1978) understanding of internalization, we suggest that internalization is the reconstruction of modeled behaviors through the use of language as a tool. However, we suggest that modeling cannot take place when a child does not have the resources to replicate what is being modeled. People cannot model what they do not have the resources to perform.⁶ This suggests that there is both an internal and an external aspect to modeling. In the case of external resources, we suggest that, although physical resources cannot be stored in the mind, people store the embedded thought processes that the institutional context (i.e., rules and regulations) provides and use them as tools constructed through the use of language. In an analysis of institutions and rational choice, North (2005) talks about this embedded thought process: "much of what passes for rational choice is not so much individual cogitation as the embeddedness of the thought process in the larger social and institutional context" (p. 24).

According to this theory, there is an important distinction between children who have internalized cognitive expectations as part of their identity and those who have not. In the latter case, the child

responds to a cue with an efficacy judgment about behavior that is subject to self-regulation. However, once cognitive expectations are internalized, behavior is more likely to be subject to environmental control—a stimulus-response process rather than a self-regulating process—unless something changes this dynamic.

INSTITUTIONAL EFFICACY CAN PROMOTE HEALTHY SELF-EFFICACY BELIEFS

There has long been a divide in the social sciences between approaches to understanding poverty that emphasize individual-level explanations as opposed to those that emphasize the role of social structure and institutions (Destin, 2013). Social scientists often view individual-level explanations as “victim blaming,” though they could be viewed as emphasizing the importance of human agency. Nonetheless, we need a conceptual framework that incorporates how individuals maximize human agency while recognizing the meaning of institutional constraints on the ability of the poor, in particular, to achieve successful outcomes. The idea of institutional efficacy provides a conceptual way to link human agency with institutional capabilities. It highlights the importance of maximizing human agency among disadvantaged individuals, while recognizing that to do so there must be authentic and trusted access to institutional capabilities, both perceived and as real.

High institutional efficacy can reinforce a child’s self-efficacy. We refer to this process, or state, as institutional facilitation. People who have access to institutional capabilities are more likely to have elevated levels of institutional efficacy, which in turn results in heightened self-efficacy and trust in their own abilities to solve problems. It is as though the individual feels uninhibited, restrained only by ability and imagination. As Bandura (1994) points out, a person with high self-efficacy is more likely to become a reformer, innovator, great writer, or famous actor.

We suggest that for humans to function optimally as agents of change, institutions must be predictable in their interactions with other human beings and organizations—all qualities of high institutional efficacy. Within the institutional facilitation framework, predictability is achieved when effort and ability are consistently perceived as producing a particular outcome, desired or undesired. People who are consistently forced to find alternative patterns of behavior to achieve results similar to others’ are at a competitive disadvantage, so they spend unnecessary effort to reach where others start. These extraordinary efforts do not produce social change (they do not create new development for society), only individual change. As a result, the poor are forever frustrated because they recognize the effort they must put forth just to survive. This effort is not socially recognized as valuable because it does not appear to add to overall productivity. Furthermore, society suffers because it loses the productivity of a large portion of its citizenry whose members are spending the bulk of their energy and time meeting basic needs in a modern world.

TABLE 2. Practice and Policy Implications of Conceptualizing CSAs as Institutional Facilitators

Theoretical Proposition	Practice and Policy Implications
<p>CSAs provide children who expect to attend college with a strategy for paying for college, which in turn, make it more likely that the college-bound identity is acted upon.</p>	<p>The degree to which children perceive that their CSA is an effective tool for paying for college might depend on the degree to which they perceive that they can use the CSA to augment their ability to save. This implies that mechanisms such as incentives and matches might be important for building confidence in CSAs as an effective tool for paying for college.</p>
<p>For CSAs to act as an effective agent for children, they must be accessible, the resources they provide have to be sufficient to create change, and children have to know how to use the resources generated by CSAs to help them pay for college.</p>	<p>The idea that children must know how to use the power generated by CSAs suggests that financial education classes might play an important role in determining the effectiveness of CSA programs for empowering children or augmenting their use of personal resources. Matches and other incentives may be important tools with which to ensure that the resources provided through CSAs are adequate to help children actually pay for college.</p>
<p>Assessing children's level of institutional efficacy is one way to measure whether CSAs provide children with certainty that they have sufficient access to institutional resources to attend college.</p>	<p>This suggests that CSA effects might occur, at least in part, through their influence on children's perceived institutional efficacy. Elliott and Kim (2013) suggest that training financial education instructors in solution-focused brief therapy (SFBT) techniques might be a way to cue children to make efficacy judgments as part of CSA programs. SFBT might counter the negative financial experiences of lower-income and minority children by offering a different perspective to view the child that: (1) focuses on the child's strengths and previous success; (2) believes the child is competent and capable of creating small successes that will lead to bigger success; (3) values the child's perspective and interpretation of the problem; and (4) believes the child's reality can be changed through co-construction of a new reality.</p>
<p>Between grades one and four, children develop a more complex understanding of outcomes to include not only self-efficacy but also institutional efficacy beliefs.</p>	<p>Despite this general arc of developmental understanding of efficacy, there are practical reasons for starting CSAs before fourth grade that go beyond the development of institutional efficacy. First, the earlier children start to save, the more time they or their families have to accumulate savings. Second, there are points in children's lives when policy is more likely to reach them. At birth or during school registration are two points when university recruitment is more likely. Third, having a CSA from birth might encourage children to perceive that saving for college is normative. And fourth, owning a savings account for college might help children to avoid forming low institutional efficacy in the first place.</p>

Theoretical Proposition, Cont.	Practice and Policy Implications, Cont.
Cognitive expectations are gradually constructed as part of the process of testing normative expectations and evaluating an accumulating set of facts, or life experiences.	If children believe they lack access to the institutional capabilities necessary to perform well in school—and eventually to attend college—they might be more likely to develop negative cognitive expectations. Therefore, CSA programs might need to provide access to funds before children reach college age to help ensure that they do not develop negative cognitive expectations.
Low-income children's constant testing of normative expectations reinforces behavioral adaptations—behaviors continue to be replicated because institutional capabilities have not changed.	CSAs might be able to bring children into the formal financial services sector in a way that might make other resources available (Friedline & Elliott, 2013; Friedline & Song, 2013). For example, a CSA might provide children with broader access to credit markets that can also be used to pay for college. This may help break this cycle and suggests that CSAs may have the power to shift expectations that exceeds even their own ability to finance college.
Patterns of behavior captured in cognitive expectations and that come to be associated with an identity might be brought to the forefront of the mind subconsciously, much like a reflex reaction to a ball flying at your face.	If CSA programs begin to provide real opportunities in ways that disadvantaged children recognize and trust, the programs are more likely to interrupt this automatic response. Once interrupted, children might be more likely to change their behaviors to meet their aspirations/normative expectations, thus resulting in greater alignment.
When a child mentally designates money in a savings account for college, it indicates that the child has been able to model the saving behaviors of their parents or others and use language to navigate the process of paying for college through saving.	We suggest that modeling may not take place when a child does not have the resources to replicate what is being modeled, or, similarly, when children do not have access to models who, themselves, demonstrate these behaviors. Modeling implies learning through duplicating/mimicking the behavior of another. We suggest that children cannot model what they themselves do not have the resources to perform. CSAs might provide a way to bring resources to children, enabling them to model saving behaviors.

Note: These are implications drawn from the theoretical model presented in this study. Therefore, research will have to be conducted to determine whether the propositions prove to be true and, if they are true, whether they produce the types of results outlined here.

KEY POINTS

In addition to helping children finance college, much of the interest in creating asset-building policies for children is based on their potential for changing how children think and act. In this chapter we outlined an institutional facilitation (IF) model for how CSAs change how children think and act. In this model, identity-based motivation (IBM) provides a general model of self, while self-efficacy (“what I can do”) and institutional efficacy (“what I can do with the help of institutions”) beliefs explain how outcome expectations (i.e., what people expect to happen) are formed and how they change. Institutional facilitation is the process by which institutional efficacy promotes healthy self-efficacy beliefs and the development of positive future identities.

Asset-building policies can change how children think and act.

- Institutional efficacy, the extent to which institutions support individuals as they seek to achieve their goals, is a key component of the interaction between individual self-efficacy and educational outcomes.
- Children’s savings accounts (CSAs) increase self-efficacy and can help children make college feel attainable and relevant to their lives, helping them form a college-bound identity.

Practice and policy implications.

- CSA programs should actively think about how they are providing cues to children that college is near to support college-bound identities consistently.
- CSA programs should engage children and families as early as possible; natural transition points such as birth or school entry are good targets.
- Financial education classes as part of CSA programs should emphasize the link between saving and paying for college.
- Incentives and matches might be important mechanisms for building children’s and parents’ confidence in CSAs as an effective tool for paying for college.
- How CSA programs need to respond to children might be different before and after fourth grade.
- CSAs might be able to bring children into the formal financial services sector in a way that makes other resources available and supports other saving behaviors.

SUMMARY OF EXPECTATIONS FINDINGS:

Seventeen studies examine the relationship between assets and *parents' and/or children's expectations* for educational achievement. Key findings are summarized:

- Of the 17 studies examined in Appendix A, 11 studies test for mediation and the remaining 6 test whether assets are associated with parent or child expectations.
- **Math and Reading:** Of the 17 studies examined in Appendix A, 5 include educational expectations and math and/or reading.
 - o **Parents' educational expectations for math and/or reading (3 studies out of 5):**
 - One study out of 3 finds net worth for math and reading is mediated by mother's college expectations.
 - o **Children's educational expectations and math and reading (5 studies out of 5):**
 - Two studies out of 5 find children's school savings and their math scores are either mediated by or related to their college expectations.
 - One study out of 5 finds the effects of net worth and school savings on math and reading are not mediated by children's college expectations.
- **College Access:** Of the 17 studies examined in Appendix A, 13 include educational expectations for college access.
 - o **Parents' educational expectations and college access (7 out of 13 studies):**
 - Of 7 studies, 5 find assets are significantly associated with parents' college expectations.
 - Two studies out of the 7 find the relationship between mother's savings and college access is mediated by mother's college expectations.
 - Two studies out of 7 find net worth is significantly associated with mother's expectations.
 - Of 7 studies, 1 found no asset variables significant for parents' educational expectations and college access.
 - o **Children's educational expectations and college access (6 out of 13 studies):**
 - Of 6 studies, 4 find that children's savings is a significant predictor of access to college.
 - Three studies out of 6 find parents' savings influence children's expectations for access to college.

- **College Completion:** Of the 17 studies examined in Appendix A, 11 include educational expectations for college completion.
 - o **Parents' educational expectations and college completion (6 out of 11 studies):**
 - Out of the 6 studies, 3 studies find that financial assets are significantly related to parents' expectations for their child to complete college
 - 2 studies out of 6 find that parent's college expectations mediate the relationship between net worth and college completion
 - o **Children's educational expectations and college completion (5 out of 11 studies):**
 - Two studies out of 5 find children's school savings are related to children's college expectations for college completion.
 - Of 5 studies, 2 find assets (e.g., financial assets and home ownership) are significantly associated with children's expectations for college completion.
 - o One study out of 5 finds net worth is not significantly related to college expectations for college completion.

CHAPTER 3

CSAS AS AN EARLY COMMITMENT FINANCIAL AID STRATEGY

*by William Elliott
with Robert Kelchen*

OVERVIEW

When thinking about the role CSAs may play in increasing college enrollment and completion rates, researchers, practitioners, and policymakers tend to focus on their ability to help children pay for college. That is too narrow a frame, though, given the disparities that drive whether children even end up at the point of college enrollment. It was not until the last 10 years that researchers began examining the effectiveness of CSAs in improving children's educational outcomes and changing the way they think about college. The emerging research linking asset development with children's academic achievement and college preparation suggests that CSAs may be a valuable tool for addressing long-term barriers to closing the college attainment gap as well as inadequate financial resources for college. Viewing CSAs through the lens of early commitment financial aid strategies reveals how shaping children's attitudes and expectations about college may influence parents' investments in their children's education, potentially mitigating some of the effects of poverty on college accessibility for disadvantaged children. This early commitment lens suggests that CSA programs can consider certain features that may strengthen educational outcome effects, such as those that would position children as agents with some control over their own academic and financial futures, rather than as passive subjects of savings interventions.

HIGHER EDUCATION INEQUITIES AND CONSIDERATIONS FOR FINANCIAL AID TIMING

Traditionally, researchers and policymakers have assumed that insufficient financial and academic readiness among low-income children and their families explains inequality in children's college outcomes. This suggests that, to increase educational and economic equality in the United States, interventions must address not only access to college at the point of enrollment but also strategies to improve early preparation.

This chapter presents children's savings accounts (CSAs) as a type of early commitment financial aid strategy. We begin by discussing the current timing of financial aid. Currently, many children do not receive information about the costs of college until their junior or senior year of high school and do not learn of their actual financial aid package until after they have applied to or, in the case of institutional aid, been accepted to college. CSAs are one strategy for encouraging earlier planning around college financing. CSAs not only might help children pay for college but also help them prepare for college. This

raises questions about how CSAs could affect children's early educational outcomes. Finally, we argue that viewing children as agents, not just subjects, is critical for maximizing the effectiveness of CSAs as an early commitment financial aid strategy.

FINANCIAL AID TIMING AFFECTS COLLEGE OUTCOMES

Research suggests that insufficient financial and academic preparation for college, partly attributable to the common perception that college is unaffordable and out of reach for many American families, are two reasons students from low-income families underenroll in college and often fail to complete degrees (Ellwood & Kane, 2000; Goldrick-Rab, Harris, & Trostel, 2009; Heller, 2006). Most low-income students only receive specific and accurate information about college costs during their junior or senior year of high school, when they are far along into the college choice process and long after they would need to prepare academically for a college-preparatory path (Cabrera & La Nasa, 2000; Hossler & Gallagher, 1987). As price-sensitive students and students with less "college knowledge" and larger errors in their estimates of college costs, this delay is especially consequential for low-income students (Bell, Rowan-Kenyon, & Perna, 2009; Bowen et al., 2009; Deming & Dynarski, 2010; Grodsky & Jones, 2007; Horn, Chen, & Chapman, 2003; Luna de la Rosa, 2006; Rowan-Kenyon, Bell, & Perna, 2008).⁷ The negative consequences of these information gaps are exacerbated by the rising costs of college, both because such price increases fuel the perception of college as an impossible dream and because the financial impact of failing to prepare adequately for college expenses increases as the sticker price rises.

Failure to plan for college enrollment from an early point in K–12 schooling is also detrimental because the academic pathways to college, especially four-year colleges, are structured and sequential (e.g., Cabrera & La Nasa, 2001; Hallinan, 1996; Klasik, 2012). For example, the track to college-level math begins in middle school, and fewer students from low-income families engage at that time (Long, Conger, & Iatarola, 2012; Lucas & Berends, 2002; Rees, Argys, & Brewer, 1996). Thus, information about college costs and necessary preparation must reach students as early as possible: effects on postsecondary enrollment are detectable for interventions as late as 10th grade (Ford et al., 2012) but are not statistically significant for information provided in 12th grade (Bettinger, Long, Oreopoulos, & Sanbonmatsu, 2012).

The issue of the timing of financial aid has received relatively little attention in discussions about reforming its design and delivery. Most efforts are directed at simplifying the process for applying for aid, since Dynarski and Scott-Clayton (2008) and Dynarski, Scott-Clayton, and Wiederspan (2013) contend that the complexity of the existing financial aid application process reduces the program's efficiency even as it promotes targeting. Still, early awareness is key to ensuring that more students engage in the process, even after it is simplified (Dynarski & Scott-Clayton, 2013; Dynarski & Wiederspan, 2012).⁸

Federal Financial Aid Timing Is Problematic

The federal financial aid system has received a lot of critique and scrutiny, in light of rising program costs and concerns about efficiency and targeting. In the 2011–2012 academic year, the federal government provided nearly \$175 billion in financial aid, of which nearly \$50 billion was grant aid, \$105 billion was loans, and nearly \$20 billion was tax credits (Baum & Payea, 2012).⁹

To be eligible for federal financial aid in a given academic year, a student must complete the Free Application for Federal Student Aid (FAFSA). The FAFSA consists of 105 questions and includes items on student and parent investments and assets that are not part of a tax return, in addition to the standard income information that is found on a W-2.¹⁰ This information is used to calculate an Expected Family Contribution (EFC) for the upcoming academic year, which is used to determine eligibility for the Pell Grant and many other grant and loan programs. This process is repeated each year that a student wishes to apply for financial aid. Thus, the FAFSA captures only a year-to-year measure of a family's short-term financial ability to pay for college, delivered on the brink of a college-enrollment decision and with no time for additional financial preparation. Additionally, the uncertainty about available financial aid in future years may hinder students' ability to plan long term for the ongoing costs they will incur throughout college.

Some have advocated simplifying the existing FAFSA process by prepopulating the form with tax information from two years prior to college enrollment, rather than one year (e.g., ACSFA, 2005; Dynarski & Scott-Clayton, 2008; Dynarski & Wiederspan, 2012). This "prior-prior year" approach would make high school students aware of available federal financial aid for college during their junior year, which may increase the likelihood they will enroll in college. However, it would not reach students who do not complete the FAFSA and could only affect the university enrollment decisions of students who are capable of being admitted—those who are academically prepared. If the goal is to induce the most price-sensitive students to consider college and prepare for it so they can gain admission and achieve college graduation, they need to know about the likelihood of and process for receiving financial aid much earlier in their schooling.

Early Commitment Programs Show Promise

Over the last decade, several states and communities have tried to provide earlier notification of financial aid through early commitment programs associated with particular (often private) grants or scholarships. For example, three states (Indiana, Oklahoma, and Washington) adopted broad early commitment programs targeted to students from lower-income families.¹¹ These programs seek to provide middle-school and early high school students with the knowledge that college will be affordable if they "do their part," which is generally defined as meeting a relatively modest GPA requirement in high school, staying out of significant trouble, and attending an in-state college or university while filing the FAFSA each year. In one example of such an initiative, St. John and his colleagues (2004) conclude that the Indiana program may have induced greater numbers of students to enroll in college.

In addition, dozens of cities and towns have adopted their own versions of "promise" programs to induce families to stay in or relocate to their community.¹² For example, the Kalamazoo Promise guarantees that students who live in the school district and attend public schools from elementary through high school will receive a grant equivalent to the cost of tuition and fees at in-state public institutions. Emerging evidence suggests that students who know they will receive a large scholarship to attend college because of the Kalamazoo Promise work harder in high school, and teachers expect more from them (Bartik & Lachowska, 2012; Jones, Miron, & Kelaher-Young, 2012). The availability of the grant may also be associated with encouraging students from low-income families to apply to more selective and expensive public universities in Michigan (Andrews, DesJardins, & Ranchhod, 2010). Of course, no causal claims can be supported with the kinds of research designs currently used; it is difficult to find appropriate

comparison groups to estimate effects. A randomized trial of one small-scope, early commitment program in Milwaukee may produce additional findings, but not for several years (Harris & Orr, 2012).

CSAS AS AN EARLY COMMITMENT FINANCIAL AID STRATEGY

Schwartz (2008) defines an early commitment program as a financial aid program that, “(1) makes a certain commitment in the early years of high school (or before); or (2) imposes conditions (such as a relatively modest high school GPA) that many students believe they can actually meet by the time they graduate from high school” (p. 120). Schwartz also highlights the point that early commitment programs with stringent requirements such as the Mississippi Eminent Scholars Grant (MESG), which requires students to have a GPA of 3.5 to be eligible, force students to assess the likelihood that they will actually receive the aid when they reach college age. If this possibility is deemed unlikely, the criteria may be set too stringently, giving the early commitment program relatively little power to influence students’ behavior and expectations. Schwartz (2008) states, “The children of high-income parents have a strong early commitment in that they can usually assume, from an early age, that their parents will pay their college expenses” (p. 118). Another way of saying this is that high-income children have internalized a strategy for paying for college similar to that espoused most aptly by presidential candidate Mitt Romney.¹³ When talking to students about how they should pay for college, he said, “You should borrow money from your parents.”¹⁴ Needless to say, this strategy is not available to lower-income or many moderate-income students and, as a result, they do not grow up with the same assurance as their higher-income peers that college is a viable path for them. When it comes to equalizing educational outcomes, this might really matter.

In their simplest form, CSAs can be thought of as savings accounts for children. However, understanding of the academic, psychological, and economic effects of assets on children’s educational trajectories suggests that CSAs have the potential to serve as a policy vehicle to allocate resources (intellectual and material) to low- and moderate-income children so they can compete in the 21st century. This is because, unlike a basic savings account, CSAs leverage investments by individuals, their families, and, in some cases, third parties, with investments from the federal government. An example of such a policy is the concept of specially designed CSAs offered at birth. The proposed ASPIRE Act (American Savings for Personal Investment, Retirement, and Education) would do this for every newborn, seeding the accounts with initial contributions of \$500 or more for the most disadvantaged and providing opportunities for financial education and incentives for additional savings. When account holders turn 18, they would be permitted to make tax-free withdrawals for costs associated with postsecondary education, first-time home purchase, and/or retirement security.

The effects of interventions earlier in a child’s life have the potential to compound over time. For this reason, economic theory suggests that interventions conducted in childhood could be more effective than those conducted in adolescence and, similarly, interventions targeted to younger adolescents may be more effective than those directed primarily at young adults. Researchers have shown that the returns of interventions earlier in a disadvantaged child’s life are higher than from interventions in adolescence, and there is no trade-off between equity and efficiency in these early interventions (e.g., Cunha & Heckman, 2010; Heckman & Masterov, 2007). Because of this, we would expect that early interventions to improve family financial literacy and increase family assets—both important components of CSAs and predictors of college readiness and success—would be more successful than later ones.

Financial education programs have been a part of what it means to start and run a CSA program. An emerging body of research suggests that financial education programs offered to children when they are young can be effective tools for teaching children financial concepts. For example, Sherraden, Johnson, Guo, & Elliott (2011) use data from a four-year, school-based financial education and savings program, called “I Can Save” to analyze program effects on financial knowledge acquisition. They find that children who participated in the program scored significantly higher on a financial literacy test taken in fourth grade than did a comparison group of children in the same school. Mandell (2006) finds that middle-school students exposed to a financial literacy seminar received substantial benefits, with the largest gains in financial knowledge accruing among the youngest students. But the effects of financial literacy programs in high school are less positive; for example, Peng, Bartholomae, Fox, & Cravener (2007) and Mandell & Klein (2009) find no long-term effects of taking a financial literacy course in high school. However, relatively few financial education interventions target students before high school, which concerns both researchers and policymakers (McCormick, 2009), particularly given evidence suggesting that low-income students are disadvantaged in terms of financial knowledge and skills, compared to their higher-income peers.

In addition to financial education, household assets also might have cumulative effects on children’s college outcomes (e.g., Huang et al., 2010). In a study examining college attendance, Huang, Guo et al. (2010) provide some evidence of assets’ potential for cumulative effects. They find that early liquid assets (liquid assets the household has while children are between ages 2 and 10) have a significant relationship with children’s long-term outcomes. Low household assets, on the other hand, can have negative effects. Elliott (2013a) follows the same group of children in the Panel Study of Income Dynamics (PSID) ages 1 to 5 in 1989 and ages 21 to 25 in 2009. He finds that children who lived in families that experienced a spell of asset poverty or an asset shock have lower academic achievement scores, high school graduation rates, college enrollment rates, and college graduation rates than children living in families that do not experience one of these events.¹⁵

Similarly, Williams Shanks and Robinson (2013) suggest that CSAs can only be effective when children live in positive or tolerable stress environments. This appears to be in line with a contextual developmental approach to economic socialization theory that takes into account children’s social background (factors such as family income, parents’ education, and employment). From this perspective, social background has an indirect influence on the development of children’s human capital through the context of the family (Ashby, Schoon, & Webley, 2011). In line with economic socialization theory, financial institutions and the policies regulating them largely rely on the family as the main, though not sole, institution for connecting children to institutionalized saving opportunities.

PARENTAL INVESTMENTS IN THEIR CHILDREN’S HUMAN CAPITAL DEVELOPMENT

Poverty clearly plays some role in perpetuating educational inequities for individual children and, collectively, compromising the achievement and productivity of generations of American children. Ideally, then, poor children would not have their abilities diminished by their environments at a young age, putting them at what most people would call an unfair disadvantage in school. Instead, like their high-income counterparts, their environments would augment their own effort and ability, so that the positive effects of CSAs might be magnified. From this perspective, parental investments of money are important to the development of children. Sherraden (1991) suggests that asset accumulation

allows parents to invest both time and money into their children's future. Parental investments include consumer goods such as clothes, adequate housing, good nutrition, toys, and games. Parents also invest in children's human capital development when they purchase such things as homes in better neighborhoods, high-quality child care, tutoring, music lessons, and computers.

Given the positive returns on a college education in the U.S. economic context, it is common for families to invest generously in their children's education. According to Lino (2012), on average, families allocate about 17% of their total budget to education-related expenses from birth through age 17. This adds up to about \$38,576 in education-related expenditures before figuring in college costs. These investments are increasingly in human capital development, not consumer goods (Kornrich & Furstenberg, 2010). Given this, inequality in parental investments may lead to some children gaining an advantage over others in school, irrespective of innate ability. It is not surprising that, given what we know about wealth inequality in America (e.g., Oliver and Shapiro, 1995), evidence suggests that wealthier parents are able to invest more in their children's futures than their poor counterparts. For example, Mauldin, Mimura, and Lino (2001) find that families with higher incomes have a higher probability of spending on educational expenses such as books and school supplies. Among families that do spend money on their children's education, there is a 9% increase in amount spent per \$10,000 increase in income. As a result of unequal parental investments, correlated to inequalities in parental resources, education might actually be helping to maintain the intergenerational transmission of class we see in the United States, a topic we discuss more in Chapter 4.

Not only are parents more likely to invest in children's human capital development now than in the past, they invest at critical times when children are young (under age 6) and when they are nearing college age (Kornrich & Furstenberg, 2010). This shows certain common knowledge about the importance of education in children's futures and also about the most crucial times to invest. There is mounting evidence that early investment in children is critical to how they perform in school, as well as to their labor market outcomes (Cameron & Heckman, 2001; Cunha & Heckman, 2008; Votruba-Drzal, 2006). Moreover, Cunha and Heckman (2008) find that cognitive and noncognitive skills might be affected differently by parental investments at different times during a child's development. More specifically, they find that parental investments are particularly important for cognitive development at earlier ages (6 to 7 years of age). In the case of noncognitive skills, they find that parental investments are particularly important closer to 8 to 9 years of age. Similarly, Votruba-Drzal (2006) finds that parental investments are more important during earlier childhood (between ages birth to 5 to 6 years of age) for children's cognitive development (which primarily affects later academic achievement), while during middle childhood (between ages 5 to 6 to 11 to 12 years of age), they are more important for children's noncognitive development (which primarily affects later behavior and socioemotional development). However, Votruba-Drzal (2006) suggests that a reason why parental investments might not have been significantly related to academic achievement during middle childhood is because it might take a longer time for middle childhood effects to occur (i.e., investments at ages 5 to 6 showing up by ages 11 to 12). Other research suggests these effects might not show up until adulthood (Duncan et al., 1998; Pungello, Kupersmidt, Burchinal, & Patterson, 1996).

Contributing to scholarship suggesting that the timing and dosage of parental investments may be significant, some research suggests that after a certain level, parental assets may actually reduce children's GPAs while they are in college (Hamilton, 2013). Hamilton (2013) points out that there are two

different perspectives on parental investments, what she calls the “more-is-more” perspective and the “more-is-less” perspective (p. 73). She also draws attention to rising concern by sociologists that parent investments are extending further into adulthood, freeing children from responsibility. Using moral hazard theory, she suggests, “When applied to this case, moral hazard theory suggests that parental aid can provide an educational disincentive for children. Children may direct more effort to school when they personally feel the economic costs of poor performance” (p. 74). However, her findings present a more nuanced picture, one in which parental investments reduced GPA but were positively associated with college completion. So, students appeared to lower their performance but not to a level where they would have to leave college. Given that many of the positive economic effects of postsecondary education accrue with college graduation, these advantaged students may not pay a long-term price for their decreased personal investment in academic achievement.

Hamilton (2013) also indicates that parental investments might differ from other forms of financial aid or ways of paying for college. In regard to the unique qualities of parental investments, she discusses how grants and scholarships now are often merit-based and tied to performance, while work-study and veteran benefits come with obvious costs—in effort expended—to the child. Similar to parental investments, loans are most often not tied to performance. Moreover, children are not obligated to pay them back until after college, in most cases. Another important point Hamilton (2013) makes that has potential implications for CSAs is that, unlike when children are in K–12 and they remain under the watchful eye of parents and teachers, when children are in college, it is much harder for parents to monitor their performance. Hamilton (2013) suggests that merit-based aid and work-study monies might, “come with a sense of having been earned rather than bestowed” (p. 91). The same might be true of money in a CSA that is in children’s own name or over which children have control. It is their money and they are asked to participate in accumulating it, which also may influence how they spend it. If one considers the process of obtaining a college education as an example of a consumer transaction, “spending” one’s investment on higher education also includes how one engages with the education, suggesting that empowered “student consumers” may differ from others in some characteristics important for determining academic success.

EMPOWERING CHILDREN MAXIMIZES CSA EFFECTS

Research and policy on savings, even within the asset field and among CSA proponents, often overlooks children as agents, capable of saving and participating in their own development of financial knowledge (e.g., Hogarth, Anguelov, & Lee, 2003, 2005). Neoclassical economic theory treats children and adolescents the same as it does low-income individuals in one important way—as lacking sufficient income to save. This view of children is articulated most clearly in the life-cycle hypothesis (LCH), the predominant model of saving in economics today (Harrod, 1948). Partly due to the belief that children have little money of their own to save, research related to children’s saving has largely focused on the role families play in developing children’s attitudes and behaviors toward saving, as evidenced in theories like economic socialization theory or a contextual development approach to economic socialization (Sonuga-Barke & Webley 1993; Webley, Levine, & Lewis 1991). According to this line of reasoning, parents provide both the wealth and knowledge children need to participate in the formal banking system. Children are seen more as passive subjects, which may have implications for how they come to see themselves and the limits of their own economic agency. Evidence of the pervasiveness of the belief in children as passive participants in their own financial lives can be found in parents’ beliefs about children

and wealth building. For example, Danes (1994) finds that 54% of parents think children are not ready to build assets until around age 18.

This does not mean, however, that children do not play an active role in their own development or, indeed, that they should not be encouraged to do so, particularly given the evolving evidence about the psychological effects of asset accumulation and how “owning” assets dedicated to education may shape children’s attitudes and expectations about their own futures. In the next section we briefly discuss research on children as socializers.

Children as Agents

Over the last 20 years, recognition has emerged among some researchers in a number of fields that children are not mere recipients of socialization but rather agents actively negotiating meanings of language and influencing the language of their parents and others (Wenger, 1998). Sociologist Corsaro (2005) states, “children are active agents who construct their own cultures and contribute to the production of the adult world” (p. 4). How might children act as socializers within the context of saving for college? One, but certainly not the only, way this might happen is by modeling for parents positive expectations for graduating college. As discussed in Chapter 1, research suggests that having savings for school might lead to more positive expectations about graduating from college (e.g., Elliott, Choi, Destin, & Kim, 2011). Having positive expectations about graduating from college may be related to parents investing more in children (Elliott & Friedline, 2013; Flint, 1997; Powell & Steele, 1995). Elliott and Friedline (2013) find evidence that when high school students expect to graduate from college, they are more likely to report that their parents contribute to paying for college when they enroll than if they do not expect to graduate from college.

Moreover, as a society we have thought about children for quite some time now as agents within the consumer market (Langer, 1994, 2005; Cook, 2004, 2008) and for good reasons. Research suggests that children spend approximately \$24 billion of their own money on goods and services, including food, clothing, and entertainment, annually (Chandler & Heinzerling, 1998, p. 61). As a result, from a consumer perspective, children are perceived as having needs, having money of their own to spend on what they want, and having a desire to spend that money. In fact, research reveals that children’s discretionary income has increased considerably (Calvert, 2008), and advertising and marketing have responded by directly and indirectly targeting children from birth (Marshall, 2010). Businesses such as the Hyatt Regency target children by advertising in the Sports Illustrated for Kids magazine, while Coca-Cola reportedly spent around \$8 million for a sales agreement with a school district (Chandler & Heinzerling, 1998). Other companies use a combination of creative and interactive games, rewards, or brand-related advertising to get children to buy their products (Lascu, Manrai, Manrai, & Amissah, 2013). It is not only advertising agencies that view children as agents within the consumer market, but also families, and this socialization begins at a very young age. According to John (1999), children as young as age two are given some role in the family purchasing decision making, such as being “commonly allowed to select treats at the grocery store, express desires for fast food, and indicate preferences for toys on visits to Santa” (p.196). Further, children ages 3 and 4 may participate in three distinct consumer roles: as decision makers, purchasers, and users of consumer goods and services (Chandler & Heinzerling, 1998). Between ages 7 and 11, children develop more complex negotiating skills and learn to bargain with and persuade parents to make purchases they would not have otherwise

(John, 1999; McNeal, 1987). If we perceive of children at a very young age as agents when it comes to consumption, why not when it comes to saving?

Understanding children as agents seems crucial for realizing the full potential of CSAs for changing children's educational outcomes. A reason why this claim is made is because if we can begin to understand children as agents with regard to saving, we can begin to understand how CSAs might work to strengthen their ability to act and shape their own financial futures. Think about it: if we spent as much money on targeting children as savers and investors as we do as consumers, would they become as sophisticated with respect to saving as they are now in consuming? This shift in thinking among researchers, policymakers, the media, educators, and parents may be an important part of maximizing the potential of CSAs as an early commitment financial aid strategy.

Building a Sense of Control in Children

CSAs are likely to have their most valuable effect on children's educational outcomes by affecting their noncognitive skills. Such skills are not trivial; they may have significant effects on children's academic and overall life achievement. Identifying strategies for developing these critical capacities in children is essential; research suggests that while noncognitive skills promote the development of cognitive skills, there is little evidence to suggest that cognitive skills promote the development of noncognitive skills (Cunha & Heckman, 2008). Perceived control is an example of a noncognitive skill discussed in Chapter 2; research indicates that it is a very important predictor of children's educational outcomes (Bandura, 1997; Skinner, Wellborn, & Connell, 1990).

CSAs act as an empowering tool for children, providing them with a mechanism to build assets of their own and shape their financial futures. In turn, this might instill more of a sense of ownership and control in children (Belk, 1988; Furby, 1980; Meeks, 1998; Wallendorf & Arnould, 1988).¹⁶ This ownership and control might extend to their sense of control over being able to finance college. In a study of 51 fourth-grade children in a college savings program, Elliott, Sherraden, Johnson, and Guo (2010) find that children who are in the school savings program are statistically more likely to perceive that saving is a way to help pay for college than are children in a comparison group. It may be that the greater control children have over a CSA, the more a part of their own identity they are likely to perceive the CSA to be, thus potentially increasing its effects (see Chapter 2).

Given the potential for an increased sense of control that CSAs may provide children, it might be that having savings of their own is particularly important for lower-income children. Low- and moderate-income children may not be able to count on household assets in the same way they can count on money saved in their own accounts, and in many ways these are the children who are most in need of help. Unlike children living in high-income households, children living in low- and moderate-income households are far more likely to experience household assets being drained by such things as unexpected car repairs, replacement of broken appliances, college expenses for older siblings, temporary bouts of unemployment, and so forth.

As a result of having a greater sense of control, having their own savings for school may instill in children, especially low-income children, a greater obligation to work hard in school (academic preparation) and to save (financial preparation). With regard to saving, Perry and Morris (2005) find that

individuals who perceive they have control over outcomes are more likely to expend the effort necessary to demonstrate responsible financial management behavior. Further, a long line of research indicates that children who have a greater sense of control work harder in school (Bandura, 1997; Skinner, Wellborn, & Connell, 1990). This is also a point made by Hamilton's (2013) study discussed above.

POLICYMAKERS ARE BEGINNING TO VALUE CSAS, BUT MORE RESEARCH IS NEEDED

Public policy and the academic literature are beginning to recognize CSAs' value as a cumulative impact, early commitment financial aid strategy. In an effort to improve families' financial ability to afford college and encourage superior academic achievement by disadvantaged students, a number of cities, most notably San Francisco, and states are turning to CSAs as a type of early commitment program.

Direct evidence of the potential of CSAs to improve children's outcomes can be found in the SEED for Oklahoma Kids (SEED OK) experiment, a randomized experiment of incentivized college savings plan accounts for children at birth, or CSAs. The SEED OK experimental sample was drawn randomly from birth records provided by the Oklahoma State Department of Health for all infants born from April through June and August through October of 2007. Of the 7,115 infants identified as eligible for the SEED OK experiment, primary caregivers of 2,704 infants agreed to participate and complete the baseline survey by telephone between fall 2007 and spring 2008. Huang, Sherraden, Kim, and Clancy (2013) use data from a follow-up survey in spring 2011 ($n = 2,236$) to test whether CSAs are significant positive predictors of low-income children's social-emotional development. Socioemotional development measures children's ability to self-regulate, their ability for compliance, and their ability to interact with other people. They find that treatment group children with CSAs have more positive socioemotional development than children in the control group.

More research is needed on the effects of CSAs on academic achievement and college enrollment and persistence. Unlike research on household assets, when examining children's academic achievement, research to date that includes children's savings has only used a cross-sectional design (i.e., children's savings and achievement are measured in the same year). In the two studies that use aggregate data, children's savings have a positive, significant association with math achievement. However, no studies examine reading achievement using aggregate data. But with children nearing school age in the SEED OK experiment, data will soon be available on children's academic achievement in a CSA program.

The potential for cumulative effects that start in early childhood, along with CSAs' potential for creating positive postcollege outcomes, are important aspects of broadening the argument for including CSAs as part of the financial aid system and for considering carefully the role of timing in influencing financial aid efficacy. This idea of broadening the conversation around why CSAs might be an effective complementary financial aid strategy was presented in Chapter 1. Unfortunately, however, most of the focus of researchers, policymakers, and funders until now has been almost exclusively on college access, and increasingly on college graduation, despite evidence suggesting that, in the long term, the challenge of ensuring that disadvantaged students are prepared for postsecondary educational success may be even more significant than the short-term need to help families afford college. Indeed, looking more narrowly at inequities among students who are prepared for or even enroll in college disguises much of the root of educational disparity in the United States today—the factors that conspire to depress educational performance of disadvantaged children throughout their academic careers.

KEY POINTS

This chapter addresses the potential role of CSAs as early commitment financial aid strategies with the additional advantages of addressing the long-term challenge of disadvantaged students' inadequate college preparation and the short-term need for financial assistance, compared to financial aid issued only at the point of college enrollment. The key points of the chapter include:

- Higher education may not function as an equalizer in American society today, given that there is evidence of little economic mobility for low-income and low-wealth individuals, and that educational attainment is highly unequal among different socioeconomic classes.
- The timing of financial aid—with awards and even financial information about higher education coming at the point of enrollment—is problematic for low-income students whose college decisions may be hindered by uncertainty about financing.
- A broader understanding of early commitment financial aid strategies can be seen to include CSAs, since they allocate resources to low-income children so they can compete in the 21st-century economy.
- Poverty can have cumulative effects on the lives and even the brains of low-income children, possibly through the medium of toxic family stress. As CSAs may affect parental investments in the academic and social environments of children, they may be part of interventions that mediate this context.
- Research suggests that early intervention is superior to investments made at the point of college enrollment, particularly given evidence of the relationship between savings and academic achievement prior to college. In the literature, assets have been found to be associated with expectations about college attendance and enrollment and with math achievement. CSAs' potential to shape attitudes and behaviors may increase the likelihood that disadvantaged students are academically prepared for college, an important component of closing achievement gaps.

To maximize CSAs' potential impact as early commitment financial aid strategies, programs and policies should view children as agents with some control over their own financial and educational outcomes, not as passive subjects completely bound by their family contexts.

SUMMARY OF K–12 FINDINGS:

Fourteen studies examine the relationship between household *assets* and children’s K–12 outcomes (for full review see Appendix B).

- **Reading:** Five out of the 14 studies include reading as an outcome.
 - o Two find that assets are not significant.
 - o Three find that some type of asset (e.g., net worth or a liquid asset) is a positive significant predictor.
 - Two of the 3 that find an asset to be significant have mixed results.
 - Differences by age:
 - o Not significant at ages 3 to 5; significant at ages 6 to 12
- **Math:** Six out of the 14 studies include math as an outcome.
 - o Six out of the 6 find that assets are significant.
 - Differences by age:
 - o Not significant at ages 3 to 5; significant at ages 6 to 12
 - Differences by race:
 - o Stocks/IRAs significant for Black children
 - o Cash accounts significant for White children
- **Combined Reading and Math:** Two out of the 14 studies include a combined math and reading score as an outcome.
 - o Both studies find that an asset is a significant positive predictor of combined math and reading scores.
- **GPA:** One out of the 14 studies includes GPA as an outcome.
 - o Finds that assets are a significant positive predictor of GPA
- **Expulsion:** Two out of the 14 studies include school expulsion as an outcome.
 - o Both studies find that assets are a significant negative predictor of expulsion from school.
- **Interest in School:** One out of the 14 studies includes interest in school as an outcome.
 - o Finds that assets are a significant positive predictor of interest in school
- **High School Graduation:** Three out of the 14 studies include high school graduation as an outcome.
 - o All three studies find that an asset is a significant predictor of high school graduation.

Five studies examine the relationship between children’s assets and children’s K–12 outcomes. Key findings summarized:

- **Reading:** One out of the 5 studies includes reading as an outcome.
 - o Findings by gender and race (e.g., male/Black; White/Black)
 - Children’s school savings are significant for Black males only.
 - Net worth is not significant for any group.
- **Math:** Five out of the 5 studies include math as an outcome.
 - o Three out of the 5 find that a type of children’s savings is significant.
 - Two out of the 5 find mixed findings.

- Differences by race:
 - o Children's school savings are positive and significant for White children; they are not significant for Black children.
 - o Net worth is not significant for Black or White children.
- Differences by race and gender:
 - o Children's school savings are positive and significant for Black males only.
 - o Net worth is positive and significant for Black males; significant and negative for Black females; significant and negative for White males; and not significant for White females.

CHAPTER 4

FROM DISADVANTAGED STUDENTS TO COLLEGE GRADUATES: THE ROLE OF CSAS

by William Elliott and Emily Rauscher

OVERVIEW

Evidence points to differences in asset accumulation as key to explaining college entrance and completion gaps among different populations of American children. Minority and low-income children have many of the same aspirations for college as more advantaged children, but their college enrollment and completion rates lag. Children's savings for school, even at very low levels, may empower low-income children who graduate from high school to enter and succeed in college. Some of these college completion effects may be a result of children's changed engagement with educational institutions, which they see as supporting their aspirations and consistent with their normative expectations. Children's savings accounts can and should be a step toward changing the educational trajectories of disadvantaged, but talented, children in the United States.

ADDRESSING THE EXPECTATION PARADOX WITH CSAS

In this chapter we discuss the expectation paradox that low-income children face: A sizable number of minority and low-income children work hard at school and have the ability to attend college, but fail to transition to college after high school graduation or to succeed once enrolled. For example, about 52% of low-income and 82% of high-income children enrolled in a two-year or four-year college immediately upon graduating high school in 2010 (Aud et al., 2012). Even bigger gaps exist when considering college graduation rates. For example, Bailey and Dynarski (2011) find that children from high-income families are six times more likely than children from low-income families to complete a bachelor's degree by age 25. Another way of looking at this paradox is to compare students with similar achievement levels but different incomes. For example, the lowest-achieving children from high-income families attend college at a much higher rate than the lowest-achieving children from low-income families (65% versus 33%, respectively). Similarly, 88% of the highest-achieving children from high-income families attend college while only 69% (a similar percentage to the lowest-achieving, high-income children) of the highest-achieving children from low-income families attend college (ACSFA, 2010).

This paradox might provide one of the more vivid illustrations of failure of the education path to act as the great equalizer in today's society. It suggests that addressing the educational challenges facing disadvantaged children today will require innovations that can create greater equality of opportunity, so that their innate talents and academic effort can translate into meaningful access to college.

In a report to Congress by a group charged with enhancing access to postsecondary education for low-income children, ACSFA (2001) suggests that poor children's pattern of educational decision making is

not the result of choice or academic preparation: “Make no mistake, the pattern of educational decision making typical of low-income students today, which diminishes the likelihood of ever completing a bachelor’s degree, is not the result of free choice. Nor can it be blamed on academic preparation,” (ACSFA, 2001, p. 18). This suggests that an uneven playing field exists, so effort and ability may no longer be the determining factors in who succeeds within the education system.

In a national survey of college-qualified, low-income students, Hahn and Price (2008) find that over 80% of noncollege-goers identified financial aid as “extremely” or “very” important in their decision not to enroll in college.¹⁷ These concerns appear to lead to inaction. The authors find that among college-qualified, low-income students who do not enroll in college, only 15% applied to any college, 12% applied for financial aid, 10% took the SAT, and 7% took the ACT. These college-qualified non-goers are disproportionately minority (52%) and low- and moderate-income (38%). In a 2006 report, the ACSFA finds that during the 1990s, between 1 and 1.6 million college-qualified high school graduates did not earn a bachelor’s degree, and they estimate that between 1.4 and 2.4 million will be lost in this decade.¹⁸ The estimates exclude those college-qualified, low- and moderate-income students who do not graduate high school.

One way to capture the effect of financial constraints on actual college attendance is to identify children who expect to graduate college but do not attend college soon after graduation. For example, using a sample of high school seniors who expected to earn a college degree after leaving high school, Hanson (1994) examines whether talent loss is stratified by gender, race, or socioeconomic status. One way she defines talent loss is when children who, while in high school, expect to graduate from college but fail to attend college six years after leaving high school. She finds that socioeconomic status is a stronger predictor of talent loss than either gender or race. In a similar study published in 1999, Trusty and Harris (1999) restricted their sample to eighth-grade children who have above-median scores in reading and math. They build on Hanson’s (1994) research by including material resources in the home (i.e., availability of printed educational materials and computers). In addition, they define socioeconomic status as parents’ educational levels, income, and occupational prestige. They also find that low socioeconomic status is the strongest predictor of lost talent. In 2006, ACSFA examined the paradox between high expectations and low college enrollment rates among low-income, high-achieving children. ACSFA (2006) referred to the difference between the percentage of children who expect to attend a four-year college and the percentage who actually do attend as “melt.” The committee found that 70% of low-income children planned in 10th grade to enroll in college, but only 54% actually enrolled upon graduating from high school. Thus, by ACSFA’s calculation, 23% of low-income children experienced melt.

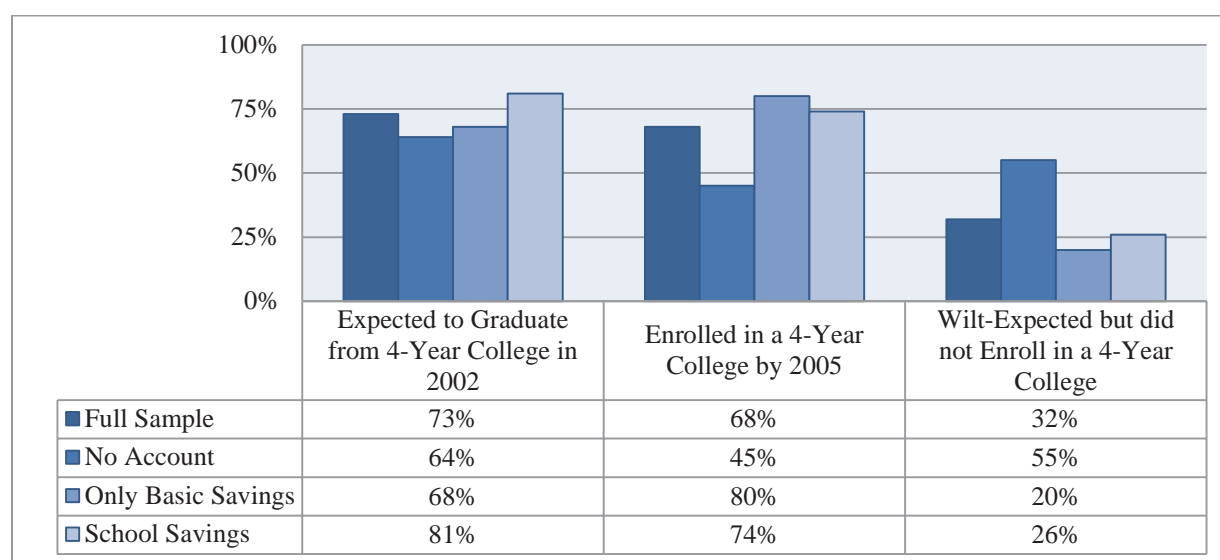
“Wilt”: The Gap Between Expectation and Attainment

Elliott and Beverly (2011b) build on expectation-paradox research by including assets in their analysis. Instead of calling this paradox “melt,” Michael Sherraden suggested it would be more suitable to call it “wilt,” which “conjures up a more fitting image that of a growing plant losing vitality due to a lack of resources” (Elliott & Beverly, 2011b, p. 167).

Figure 5 provides statistics on children’s expectations, college enrollment at a four-year college, and wilt by children’s savings amount. A smaller percentage of children with no savings of their own as adolescents expects to graduate from a four-year college than children with only a basic savings account

or those who have mentally designated a portion of their basic savings for college (proxy for having school savings). The gap is wider in the case of school savings than it is for basic savings. There is a 17 percentage point gap between children who have school savings as adolescents (81%) and children without accounts (64%). In comparison, there is only a four percentage point gap between children who have basic savings as adolescents and children without accounts (68% versus 64%). The lower expectations among children who only have basic savings might help explain why wilt is lower in the case of basic savings (20%) compared to school savings (26%) and why Elliott and Beverly (2011b) find that basic savings have a stronger association with reduction in wilt than school savings; that is, there is a much higher chance of wilt in the case of school savings than in the case of basic savings, perhaps because students with very high expectations about college attendance are more likely to save specifically for college. However, whether it is basic savings or school savings, Elliott and Beverly (2011b) find that having savings is associated with a reduction in wilt.

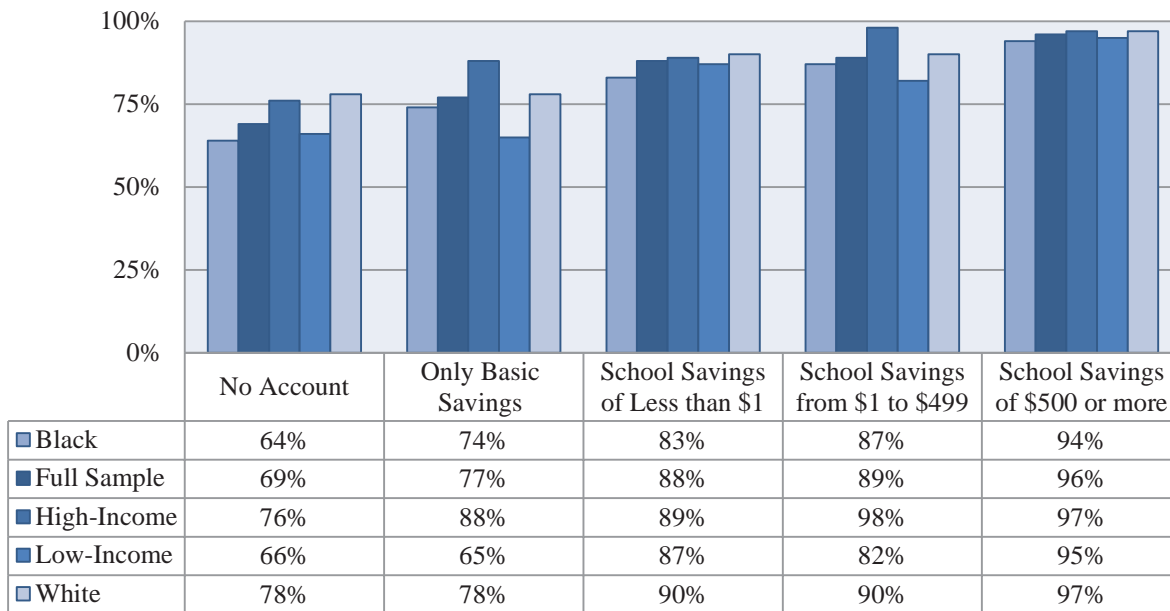
FIGURE 5. College Expectations, Enrollment, and Wilt



Source. Elliott & Beverly, 2011b.

Elliott, Song et al. (2013a) and Friedline, Elliott, and Nam (2013) build on Elliott and Beverly (2011b) by examining different amounts—having no account, only basic savings, or savings designated for school—and relation to graduation and wilt. Figure 6 illustrates how children's expectations differ by race, income, and amount of children's savings (with breakouts by different levels of savings). Generally, higher percentages of children expect to graduate from college (two-year or four-year) as savings amount rises, regardless of race or income. Moreover, there appears to be less variation in expectations by race and income when children have higher amounts of school savings.

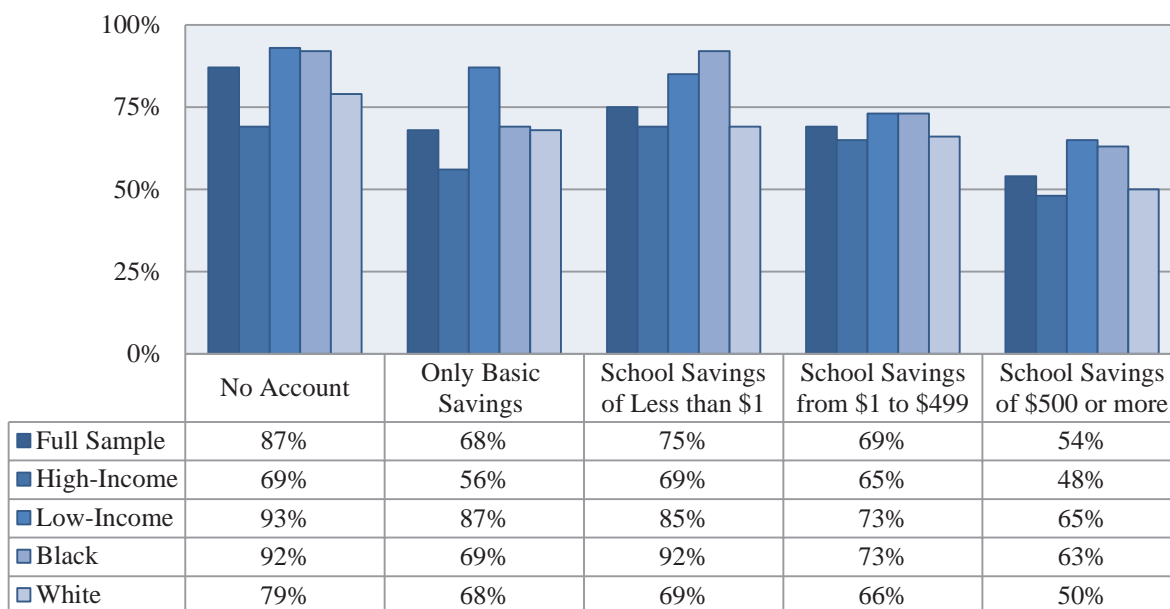
FIGURE 6. College Graduation Expectations in 2002 at a Two-Year or Four-Year College



Source. Elliott, Song, & Nam, 2013b.

Figure 7 illustrates wilt findings by race, income, dosage of children's savings and graduation from a two-year or four-year college. With respect to wilt, the most observable difference is between no account and school savings of \$500 or more. The descriptive findings are consistent with the multivariate findings. Among children who expected to graduate from college while in high school, Elliott, Song et al. (2013b) find a low- and moderate-income child who has school savings of \$1 to \$499 before reaching college age is about four times more likely to graduate from college than a child with no savings account.

FIGURE 7. Wilt—Expected to Graduate from College in 2002, Did Not Graduate a Two-Year or Four-Year College by 2009



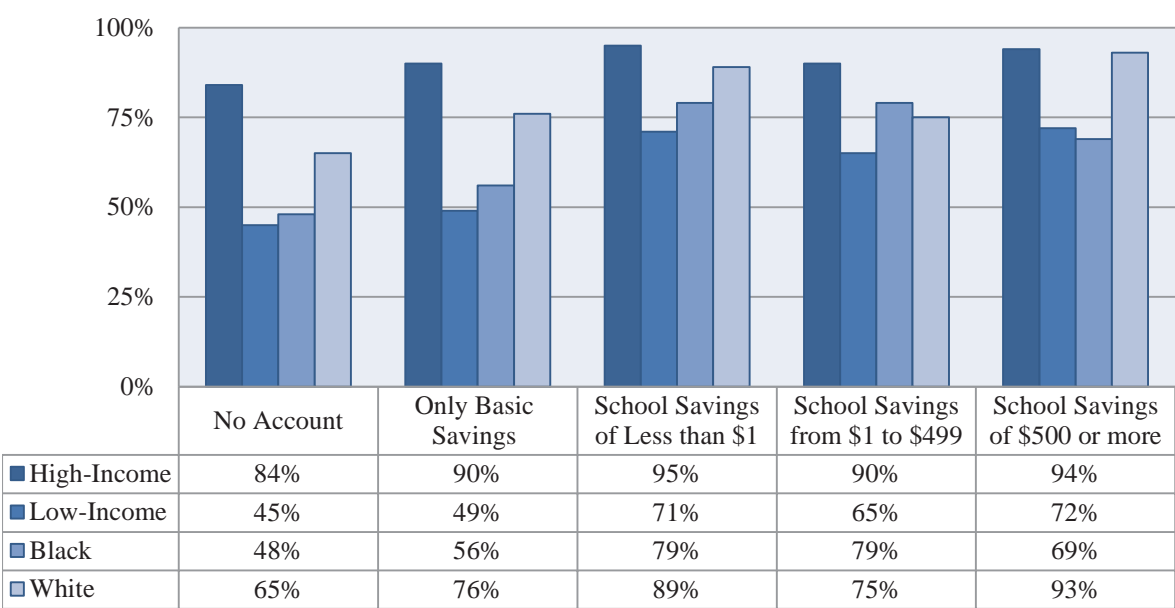
Source. Elliott, Song et al., 2013b.

Moreover, with regard to Black children who expected, while still in high school, to graduate from college, those who had school savings of \$1 to \$499 are four times more likely to graduate from college, and those with school savings of \$500 or more are 3.5 times more likely to graduate from college, than those Black children with no savings account.

CSAs May Improve College Enrollment Rates

Research suggests that simply providing low- and moderate-income children and Black children with an account might have a positive effect on whether they enroll in college, even if their eventual savings for school are very small (Elliott, Song et al., 2013a; Friedline, Elliott, & Nam, 2013). While it is not clear in Figure 8 that having savings reduces the college enrollment gap at all savings levels, descriptive data indicate that the percentage of children who enroll in college from each income and racial group is higher when they have savings for school than when they have no account as a child. Multivariate statistics support the contention that having school savings as a child improves the chances that low-income and Black children will enroll in college. For example, a low- to moderate-income or Black child who has school savings of \$1 to \$499 before reaching college age is about three times more likely to enroll in college than a Black child with no savings account (Elliott, Song, et al., 2013a; Friedline, Elliott, & Nam, 2013).

FIGURE 8. Ever Enrolled in College by 2009 by Race and Income



Sources. Friedline, Elliott, & Nam, 2013; Elliott, Song et al., 2013a.

Appendix C provides an overview of relevant studies on college enrollment, including methods and findings.

INEQUALITIES DEEPEN AFTER COLLEGE ENROLLMENT

While successful college graduates—particularly those who enjoyed the privilege of wealthy, higher-class parents—may prefer to think of college as a meritocracy, it is not (Bowen et al., 2009; Espenshade & Radford, 2009). Disparities in college completion rates exist by parental income, parental education, cultural and social capital, mental and physical health, family structure, and academic preparation. In addition to these inequalities, a relatively recent line of research shows that assets—more unequally distributed than income (Mishel et al., 2013; Oliver & Shapiro, 1995)—are also important for college graduation.

Each of these factors is difficult enough to address on their own. However, these inequalities work together with the education system to make unequal college completion—and inequality in general—appear legitimate. One way that social inequality interacts with the education system to reproduce inequality is through institution type. Throughout this chapter, we have largely assumed a similar institutional context among college students. However, when it comes to both determining the likelihood of college attainment and, subsequently, reaping the economic and social benefits of the degree after graduation, it is clear that not all higher education is created equal. The type of institution a student attends—e.g., two- or four-year, private or public, selective or non-selective, and size—has important implications for the likelihood of graduating (Carnevale & Strohl, 2010). Two-year colleges have lower retention rates than four-year schools, even after accounting for differences in the types of students (Tinto, 1987). Because those who attend two-year schools tend to come from families with fewer advantages, these retention differences exacerbate inequality. Similarly, private and more selective postsecondary institutions have higher retention rates on average. As Davies and Guppy (1997) point out, student socioeconomic status is related to the likelihood of entering a selective college, and even choosing a lucrative major within a selective college. Low-income students attending private or selective schools are also more likely to encounter socioeconomically advantaged peers, who can positively influence graduation, catalyze formation of social networks, and help low-income students bridge gaps of cultural capital.

Beyond institution type, student pathways through college represent another way in which inequalities interact with the education system to transmit advantage between generations. Lower class students (with parents who have less education and lower incomes) are more likely to: (a) to transfer from a four- to two-year school (Goldrick-Rab & Fabian, 2009); and (b) to transfer between postsecondary institutions with time gaps between leaving one school and entering another (Goldrick-Rab, 2006). These differences have implications for the likelihood of degree completion and returns (Cabrera, Burkum, & La Nasa, 2005; Elman & O’Rand, 2004). Even within the same school, experiences can vary drastically. Cabrera et al. (2005) find that the biggest difference between low-income students and others is the likelihood of taking at least one math and science course; the former are more than 30% less likely to take either a math or science course. At the same time, math and science course taking, along with academic performance and continuous enrollment, are some of the most important factors predicting degree completion. Beyond graduation, failing to complete these courses closes off many potentially lucrative career options.

Experiences at college are also important for degree completion. Low-income students experience more instances of class discrimination, which in turn reduces school belonging and increases intentions of

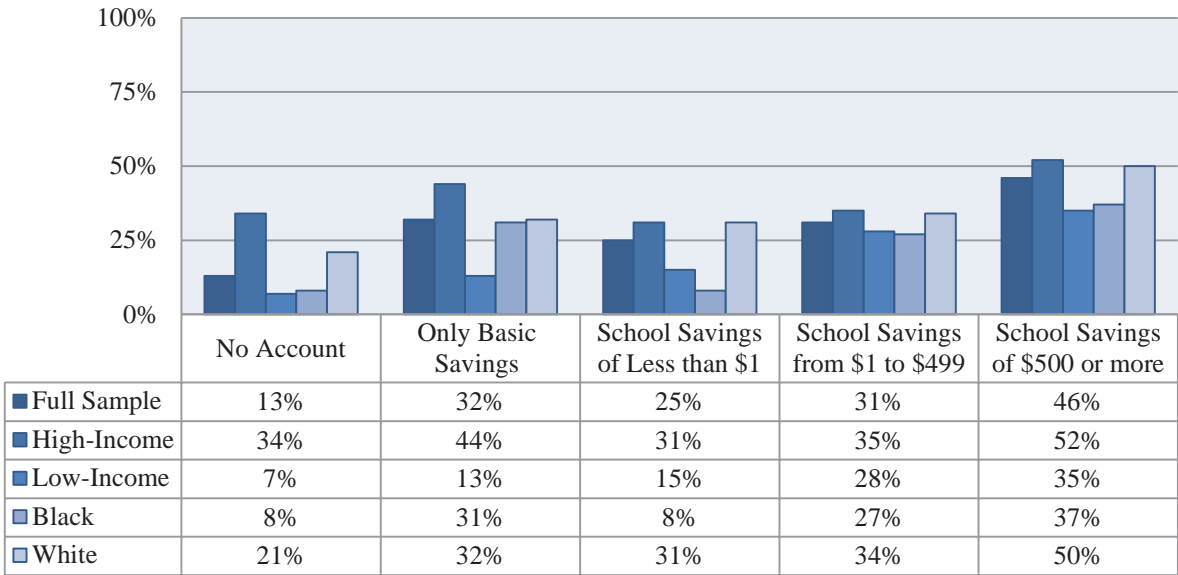
dropping out (Langhout, Drake, & Rosselli, 2009). Although positive academic and social experiences at the school increase the likelihood of completing a four-year degree (Cabrera et al., 2005), these too, it seems, are unequally distributed by class.

Despite the impact of institutional differences, they often remain hidden. In explaining why a student dropped out of college, many individuals’ first thoughts might be that she could not do the work or did not try hard enough. In fact, the college may deserve much of the blame. In this way, the intergenerational transmission of inequality is papered over.

The above review provides clear evidence of unequal access to a college degree, even once low-income and minority students have hurdled obstacles to college admission. Still, Americans often portray the education system as “the great equalizer” (Mann, 1848, p. 59), and college graduates are likely to believe that their degrees are solely the result of their hard work.

Figure 9 depicts college graduation rates by income, race, and dosage of children’s savings. Here, the effects of asset holdings on persistence through graduation are seen; as the dosage of children’s savings rises so do graduation rates, regardless of race or income.

FIGURE 9. Graduated From a Two-Year or Four-Year College by 2009



Sources. Friedline, Elliott, & Nam, 2013; Elliott, Song et al., 2013a.

Appendix D provides an overview of relevant studies on college completion, including methods and findings. To summarize the evidence, of the 15 studies that investigate any college completion (either a two- or four-year degree), 14 find a significant relationship with at least one asset measure. Three of those 14 studies find that asset results differ by race or income. Two studies investigate the relationship between assets and four-year college completion, both finding a significant relationship, but one finds that results differ by gender. Finally, one study finds a significant relationship between assets and total years of schooling.

CSAS ALIGN NORMATIVE AND ROLE EXPECTATIONS

The evidence above illustrates the pressing issue of high college dropout rates in the United States. Students who leave represent a substantial loss of both financial investments (from society, parents, and individuals) and opportunity. Given that college access and retention are so unequal by class and race, this issue is critical for improving equality of opportunity in the United States and maintaining the American dream. Even beyond opportunity, however, the United States must find ways to reduce wilt to increase efficiency of college investments. Assets represent an attractive policy strategy that—with limited financial investment—could increase college attendance and reduce wilt, thus increasing the chances that money invested in college students translates into college graduation. This section examines how assets might help reduce wilt by aligning normative and role expectations for low-income and minority students. Normative expectations—shared ideals about how institutions respond to individuals—reflect societal norms; democratic societies teach that they apply to everyone, not only to a dominant group or groups. Normative expectations are validated by mainstream values and shared by most people within the society (Gould, 1999; Luhmann & Albrow, 1985). The institutional facilitation framework emphasizes three normative expectations: (1) the American dream, (2) individualism (human agency), and (3) education as a path to economic mobility. These normative expectations may help us to understand educational differences within the American educational context and how change might come about.

According to Shapiro (2004), the American dream “is the promise that those who work equally hard will reap roughly equal rewards” (p. 87). The American dream serves the purpose, at least in pretext, of providing everyone with equal opportunity. Under such an understanding, effort and ability are seen as the determining factors in who succeeds and who fails (i.e., America is a meritocracy). This leads us to the second normative expectation—individualism, or the belief that individuals, not institutions, are causes of things that matter. For example, Gilens (1999) finds that 96% of Americans agree with the assertion, “People should take advantage of every opportunity to improve themselves rather than expect help from the government” (p. 35). This suggests that people believe opportunities generally exist for everyone (i.e., institutions treat everyone the same) and that it is up to the individual to take advantage of those opportunities. Because people maintain their belief in the basic idea of the American dream, they resist institutional explanations for explaining variations in individual outcomes.

The third normative expectation is the belief in the idea of education as a path to social and economic mobility (Ogbu, 1983). According to Elfin (1993), “Of all the truths that this generation of Americans holds self-evident, few are more deeply embedded in the national psyche than the maxim, ‘It pays to go to college’” (p. 1). Researchers find that almost all students aspire to attend college (94%), and most parents (96%) want their child to attend college (Horn et al., 2003). A 2012 Sallie Mae/Gallup Poll showed that 77% of parents strongly agreed that college is an important investment in their children’s futures (Sallie Mae, 2012). Children are even more emphatic. About 80% of children in 2012 strongly agreed that college is an investment in their future. These data show that many people see education as a path to economic mobility. Collectively, these normative expectations help maintain people’s belief in the legitimacy of American institutions. They make up a system of beliefs that allows individuals to maintain at least a faint hope that they can overcome their current situation or that their children can.

Unfortunately, once minority or low-income children arrive in school, they often find that their own

actions are not producing the kinds of institutional responses that American normative expectations predict, creating “cognitive expectations” that are at odds with the normative expectations that constitute the American dream.

In contrast to normative expectations, role expectations are based on the historical and contemporary experiences of a particular social group with institutions and their resources for achieving desired ends. Role expectations are similar to Knight’s (1992) notion of social expectations: they are socially shared expectations about how a person as a member of a group can be expected to act with regard to a specific domain. As such, they can be thought of as specifying a role that a person is to play in society. As Knight suggests, the fact that role expectations are shared does not mean that all members of a community accept or act on them.

Knight (1992) suggests that strategic actors (actors motivated by a desire to maximize their own goals) make choices to achieve desired outcomes. People are strategic in the sense that they make choices based on their expectations about the choices of others (Knight, 1992). According to Knight, institutions affect the decision-making process of an individual by providing that individual with information about the choices of others and by providing some form of sanction when an individual does not behave as expected (Knight, 1992). Knight describes the struggle between strategic actors in this way,

In any single social interaction the task of a strategic actor is to establish those expectations that will produce his desired distributional outcome, to constrain those with whom he interacts in such a way as to compel them by the force of their expectations to choose that strategy that will lead to the outcome he prefers (p. 49).

Role expectations differ from cognitive expectations in that they are part of the institutional context—society forms and shares them for the group to which an individual belongs. In contrast, the individual, as a result of his or her experiences (these experiences may differ from person to person within a particular group) with using effort and ability to achieve desired outcomes forms cognitive expectations unique to the individual’s experiences. Regardless of children’s cognitive expectations they are forced to perform school-related activities in the context of socially shared role expectations for them. However, it is also important to point out that the external context (normative and role expectations) cannot fully explain children’s behavior because children possess agency and have varied experiences with respect to school.

In an institutional facilitation model (described in Chapter 2), there are three different categories of role expectations: those that advantage some, those that create equality for all, and those that disadvantage others. Role expectations that create advantage for some children unevenly increase the amount of return a child can expect to receive from investing effort and ability into schooling. Role expectations that disadvantage some children reduce the amount of return a child can expect to receive from investing effort and ability into school. In the ideal scenario, institutions would be held constant and variation in outcomes would be the result of personal capabilities—effort and ability. In other words, if U.S. society worked the way many Americans believe it does, normative expectations and role expectations would be in harmony with one another. Role expectations are critical because they represent the ongoing struggle and institutionalization of rules that divert resources to be used to augment certain groups’ use of effort and ability and not others’, constraining the action of those groups whose members are not provided institutional benefits.

Transforming Power Into Right

More specifically, as Knight (1992) suggests, role expectations result from a struggle between individuals (strategic actors) over the distributional advantage that institutions provide. In a capitalistic society, those who have wealth are in a position of power over those who do not have as much wealth when it comes to a bargaining situation (e.g., negotiation over where societal resources should be spent). To maintain advantage, those who have wealth must transform this power into right; maybe this is why our political apparatus has become so responsive to money and who has money (Ferguson, 1995). These power transactions also occur at the local and individual levels. People with wealth transform their power into right by structuring role expectations so they constrain the actions of minority groups and the poor.

An example of an institutionalized role expectation can be found in the current means-tested welfare system in America. According to Sherraden (1990), welfare for the poor has traditionally been defined in America as “the level of money, goods, and services received as income” (p. 580). Therefore, under the current welfare model, the pattern low-income families walk into is a present-time-oriented or consumption-based pattern of behavior; in contrast, the pattern higher-income families walk into is future-oriented or asset-based. That is, the expectation set for the poor is that they cannot save and should not accumulate wealth because to save or accumulate wealth, they would have to forgo opportunities to eat or provide other basic needs now. Therefore, asset tests have been established that require households to keep their liquid assets below limits set by federal or state governments to be eligible for welfare programs such as Supplemental Nutrition Assistance Program (SNAP, formerly food stamps). In contrast, we provide wealthy families with incentives to save and accumulate assets through asset programs such as 401(k) plans, home mortgage tax breaks, 529 plans, and others. What we suggest here is that a bifurcated welfare system exists in the United States: one branch focuses primarily on the ability of the poor to consume goods, while the other focuses primarily on the ability of middle- and high-income income families to accumulate assets. This system clearly sets very different expectations for each group, and yields very different outcomes as well, contributing to the perpetuation of poverty.

Expectations are set at the local level as well. For instance, in *Savage Inequalities: Children in America's Schools*, Jonathan Kozol (1991) points out that school funding disproportionately favors affluent White children. He identifies large variability in local property taxes for education as one of the most important factors limiting life chances of poor Black children,

In suburban Millburn, where per-pupil spending is some \$1,500 more than in East Orange although the tax rate in East Orange is three times as high, 14 different AP [Advanced Placement] courses are available to high school students; the athletic program offers fencing, golf, ice hockey and lacrosse; and music instruction means ten music teachers and a music supervisor for six schools, music rooms in every elementary school, a “music suite” in high school, and an “honors music program” that enables children to work one-on-one with music teachers. Leveraging property wealth results in educational advantage for children living in affluent communities. Black and poor communities, however, lack the wealth to access similar advantages. Meanwhile, in an elementary school in Jersey City, seventeenth-poorest city in America, where the schools are 85 percent nonwhite, only 30 of 680 children can participate in instrumental music. (pp. 157, 158).

At the individual level, for example, Shapiro (2004) finds that White middle- and upper-class parents gain an educational advantage by leveraging their homes (a key form of asset holding in America) in what he refers to as, “a narrow, self-interested way” (p. 158). They do this by moving to better neighborhoods where high-quality schools exist, using their individual power to exploit the disparities in resources wrought by the local policy decisions referenced above. Shapiro (2004) suggests that parents define high-quality schools by race and class. However, lack of wealth (primarily inherited wealth) prevents many poor and Black families from moving into these neighborhoods and, therefore, from accessing these schools and the opportunities they would afford to their children. Further, if too many Black families move into a neighborhood with high-quality schools (wealthy, White schools), White families leave the neighborhood (Shapiro, 2004).

It is not surprising that for minority and low-income children, role expectations are too often out of harmony with normative expectations. Role expectations are critical because they represent the ongoing struggle and institutionalization of rules that divert resources to augment certain groups’ use of effort and ability and not others, constraining the action of those groups whose members are not provided institutional benefits. However, the external context (normative and role expectations) cannot fully explain children’s behavior because of the internal process (i.e., agency of children) that occurs and the varied experiences that low-income children have with respect to school. So, while we see a high percentage of low-income children who underachieve in grades K–12, we also see others who are high achievers, as we discussed earlier in this chapter. Similarly, with regard to college enrollment, while far too many high-achieving, low-income children fail to attend college, many others do attend.

Changing the External Context with CSAs

The external context makes it more or less likely that children enroll in college, and exceptions do not belie the underlying pattern of disparity. Therefore, it is not surprising that high-achieving, low-income children are less likely to enroll in college than are high-achieving, high-income children.

In speaking about how institutions can be changed, Knight (1992) believes they can be “by changes in either the distributional consequences of those rules or the relative bargaining power of the actors” (p. 145). Similarly, changing the distributional consequences of role expectations and the bargaining power of minority and low-income children is a way to change role expectations that are in conflict with normative expectations. Here we are talking about negatively affecting the internal process of forming an identity by denying children access to institutional resources at key points during this process, which can lead to a child’s overemphasizing the role that external institutions (e.g., the financial aid system) play in the decision whether to enroll in college.

In the current system either low-income parents are expected to provide the resources for challenging these role expectations, or this interruption is to occur through some philanthropic organization. Public institutions have largely retreated from this responsibility with the rise in college costs, even at state schools, and the reduction in financial aid based on financial need. The existence of limited private resources to supplement family capabilities might be part of the reason why we see a smattering of success (some inexplicably succeed while others inexplicably fail) among low-income children. As we discuss in more detail in Chapter 5, low-income parents are at a disadvantage for providing the kind of institutional context needed to counteract disadvantageous role expectations. Further, philanthropic

groups do not provide a comprehensive, systematic strategy for providing all low-income children with the institutional context they need to overcome disadvantageous role expectations (e.g., they provide boots to an individual child when the media calls attention to a child who is without boots, but without adequately addressing the structural factors that led to the child's lacking a necessity like boots in the first place). Especially given evidence to suggest that asset effects on educational outcomes can be realized at relatively low levels of investment, however, there is reason to suspect that public support for widespread, even universal, children's savings may succeed where reliance on individual or sporadic efforts has not. As part of a public commitment to more equal access to higher education, a national CSA program may provide children with the bargaining power they need to deemphasize disadvantageous role expectations most of them share in forming their own identity.

CSA programs may place these role expectations back in line with normative expectations by ensuring that college appears attainable to children throughout their time in school. CSA programs may also extend this connection to children's identity as members of a community through community-organized, third-party contributions to children's CSA accounts. That is, communities that are able to ensure that every child has college savings and forms a college-bound identity (as it was called in Chapter 2) builds a durable community identity around college attendance and success.

Finally, CSAs may provide a way for children to interpret and overcome difficulty. To sustain and work toward an image of a future self as being college-bound, the context must provide a way to address obstacles to attending and completing college. Here, the role of school savings is clear, and this mechanism may provide some particular insights into why school savings are so influential in affecting persistence to college graduation. Children are more likely to act on their college-bound identity when resources augment their effort and ability to make the image a reality. Education is not simply about effort and ability or even a teacher and a student; education is also about the ability of children to access computers, the Internet, textbooks, cultural events that provide knowledge building, and even social events in an era when children's lives are not defined solely by work but by their ability to interact in social settings.

CSAS UNLOCK MOTIVATION AND EMPOWER LOW-INCOME STUDENTS TO SUCCEED

If children's experiences with schools teach them that their investment of effort and ability is undervalued relative to other children (both in school and later in the labor market), the decision to invest in education becomes less likely. While the benefits of education ultimately outweigh the costs, minority and poor children often find themselves competing in an unfair game. While research has shown, for example, that Black children have equal or higher levels of motivation for performing academic work once environmental factors are controlled for (e.g., Graham, 1994), they must expend more effort to achieve the same results due to differences in how institutions augment their effort. The educational institution that augments White and high-income children's use of effort and ability too often overlooks or devalues minority and poor children's use of effort and ability in school. This, in turn, makes success seem less possible (see Chapter 2's discussion of institutional efficacy).

Research has uncovered ways that having savings unlocks this motivation in low-income children. When children have a CSA, they may begin to act as though they have a right to attend, and expect to complete, college. With their financial stake in college comes a power that translates into different

institutional interactions. This sense of power comes from their faith in the rules and regulations governing capitalist economic markets that protect the individual's right to own property. As a result, children may be more inclined to take control over their educational experience when they have savings. This feeling of power may manifest itself in many different ways. For example, children who feel empowered are believed to feel more comfortable about asking teachers, counselors, and school administrators for information about higher education or financial aid. They may also be more likely to take college-prep classes or the SAT and ACT, or to apply to four-year colleges instead of two-year colleges. They may more quickly seek out an adviser when encountering academic challenges, and may eventually become better consumers of other financial aid options, including student loans. In this manner, children's savings programs may well empower children to participate in, negotiate with, influence, control, and hold accountable the schools they attend.

KEY POINTS

The chasm between shared aspirations of college attainment by children of all income levels and races and the reality of disparate educational outcomes—the expectations paradox—challenges the reality of the American dream. There is some evidence that asset accumulation initiatives, including CSAs, may serve as a counterbalance to these negative expectations and, in turn, have considerable effects on the educational outcomes of low-income and minority children.

- Even very low levels of asset holding can increase college enrollment rates.
- Asset accumulation may reduce “wilt”—low-income high school graduates who fail to succeed in college—by aligning children's talents with their realistic expectations.
- Assets may increase children's power and ownership in an educational system where learning is largely seen as a commodity, thus improving the quality of the educational experience before and during college.
- Asset effects can reshape the educational trajectory of low-income and minority children, some protection against the rising college costs that have made higher education seem more aspirational than realistic.

SUMMARY OF COLLEGE ENROLLMENT FINDINGS:

Twenty-seven studies examine the relationship between household assets and children's college enrollment/progress (for full review see Appendix C).

- **Any College Enrollment/Progress:** Twenty out of 27 studies include any college enrollment or progress as an outcome, including combined two- and four-year enrollment.
 - o Two studies find that assets are not significant.
 - o Eighteen studies find that some type of asset (e.g., net worth, liquid asset, homeownership) is a positive significant predictor.
 - Three studies out of the 18 that find an asset to be significant have mixed results.¹⁹
 - o Differences by race:
 - Black:
 - Net worth is significant.
 - Parents' savings are not significant.
 - Black and Hispanic/Latino:
 - Financial assets are not related to college enrollment.
 - Secured debt is positive and significant.
 - White:
 - Financial assets (school savings) are significant.
 - Net worth is significant.
 - Parental savings are not significant.
 - No school saving amount is significant.
 - Differences by income:
 - o Mixed results for low- to moderate-income children:
 - Children's school savings are significant.
 - Net worth is positive and significant in one study and not significant in another study.
 - Parental savings are not significant.
 - **Two-Year College Enrollment:** Two out of 27 studies include two-year college enrollment as an outcome.
 - o Parental savings accounts are significant predictors of two-year college enrollment; however, savings amount is not significant.
 - o Net worth is significantly associated with two-year enrollment.
 - **Four-Year College Enrollment:** Seven out of 27 studies include four-year college enrollment as an outcome.
 - o Two studies find that assets are not significant.
 - o Five studies find that some type of asset (e.g., net worth, liquid asset, home ownership) is a positive significant predictor.
 - One study out of the 5 find mixed results for the significance of net worth
 - o Differences by race:
 - Net worth is not a significant predictor across all racial/ethnic groups (Whites, Blacks, Asians, or Latinos) when controlling for academic achievement.

SUMMARY OF COLLEGE COMPLETION FINDINGS:

Seventeen studies examine the relationship between household assets and children's college completion (for full review see Appendix D).

- **Any College Completion:** All 17 studies include any college completion/graduation as an outcome, including certificate and two- and four-year degree completion. Results are mixed.²⁰
 - o Eight out of 17 studies find that assets (e.g., net worth, liquid asset, financial asset, home ownership, unsecured debt, secured debt, savings, IDAs, loans) are not significant.
 - o Sixteen out of 17 studies find that some type of asset (e.g., net worth, liquid asset, homeownership) is a positive significant predictor.
 - Differences by race:
 - o White:
 - Financial and liquid assets are significant.
 - School savings and net worth are not significant.
 - o Black:
 - Nonfinancial assets, secured debts, net worth, and liquid assets are significant.
 - o Latino:
 - Unsecured debts are negative and significant.
 - Financial and nonfinancial assets are not significant.
 - Differences by income:
 - o Low-to-moderate:
 - Net worth is positive and significant.
 - Children with school savings of more than \$1 are more likely to graduate college than are children with no savings.
- **Four-Year College Completion:** Two out of 17 studies include four-year college completion as an outcome.
 - o Both studies find that an asset is a significant, positive predictor of four-year college completion.
 - One study out of the 2 that find an asset to be significant have mixed results.
 - o Differences by gender: For females in the 1994 cohort, net worth and liquid assets are significant.
- **Total Years of Schooling:** One out of 17 studies includes total years of schooling post-high school as an outcome.
 - o Net worth is associated with more years of post-high school formal education.

CHAPTER 5

HOW CSAS FACILITATE SAVING AND ASSET ACCUMULATION

by William Elliott, Terri Friedline, and Sally Kakoti

OVERVIEW

Traditional theories (i.e., economic socialization and financial socialization) that explain children's savings attitudes and behaviors suggest that low-income families are unlikely to save because they have low incomes. Since low-income families have very little money left after meeting their basic survival needs, the decision to save is much more costly for them than it is for other families.

Traditional savings theory also assumes children and adolescents are unable to save. Instead, we posit that children and the poor are essentially groups of people differentiated from others by their inability to access superior institutions. In this context, CSAs facilitate children's asset accumulation and prime them for positive experiences with other formal institutions, with effects far beyond college savings.

A NEW UNDERSTANDING OF CHILDREN AS SAVERS IS NEEDED

Parents may initiate the financial socialization process (Kourilsky, 1977; Moschis, 1987; Rettig & Mortenson, 1986), but as children grow, more advanced sources of financial information are needed. Low-income parents may not always have the requisite financial literacy to transmit this knowledge to their children. Moreover, from an institutional perspective, families with a legacy of being blocked from owning assets due to structural failings are less likely to have assets to begin with (e.g., Conley, 1999; Oliver & Shapiro, 1995; Shapiro, 2004). They are also less likely to have connections to financial institutions that augment their ability to save and accumulate assets. From this perspective, lack of assets and institutional connections may limit the ability of low-income families to function optimally as financial socialization agents.

The limited capacity of low-income parents to socialize their children financially suggests the need to empower children to develop their own saving attitudes and behaviors. There is considerable precedent for viewing children as economic actors in their own respect; to develop children's own saving, advertisers have long understood that children are powerful players in the consumer market. To make this transition in the world of asset accumulation, though, low-income children and others will need an institution that starts as early as birth, directs resources to children, and helps them become financially capable as adults. This suggests another important rationale for CSAs, in addition to their utility as tools to shape children's orientation toward their own educational futures and to help finance their higher education. To the extent to which they can help children learn and practice critical financial management skills and prepare to operate effectively in the financial mainstream, CSAs may have significant implications for helping to eliminate the cycle of poverty in America.

We begin by discussing the two predominant theories for understanding children as savers: economic socialization theory and financial socialization theory. While both contribute to our understanding of how children develop attitudes and behaviors related to saving, they both fail to recognize the critical role children play as actors in this process. We follow this by discussing institutional theory, institutional facilitation, financial capability, and identity-based motivation (IBM) theory. Institutional facilitation and IBM are discussed in detail in Chapter 2, so we discuss them only briefly here. Part of the rationale for discussing these four theories is to move toward an overall theoretical framework for understanding for whom, how, when, where, and why CSA programs affect children's attitudes and behaviors related to both their educational and savings outcomes. Institutional facilitation tells us about how institutions become internalized in the individual to form a college-saver identity and the role that both the individual and the institution play in forming an identity. IBM theory is used to explain under what circumstances college-savers will act on that identity once it is formed.²¹ Development of the college-saver identity may also be an important mechanism through which relatively small-dollar college savings accounts can shape children's attitudes and behavior about their educational futures. Institutional theory explains what characteristics CSAs must have to be effective and, therefore, provides important guidance for policy and program development. Financial capability explains why to be effective, financial education must be linked to an account. The first two theories deal with the internal capability of children and the second two deal with their external capability. The internal and external interact to shape one another. We end by discussing the potential of CSAs to have postcollege effects on the financial health of children throughout their lives, which suggests further potential to promote economic mobility and break intergenerational cycles of poverty.

TWO COMMONLY USED PERSPECTIVES FOR EXPLAINING CHILDREN'S SAVINGS

Theoretical research suggests that children's saving is quite complex and deserves attention (Lunt & Furnham, 1996; Sonuga-Barke & Webley, 1993). Two theoretical models specifically explain how children develop saving attitudes and behaviors: economic socialization theory and financial socialization theory.²² Findings from both perspectives offer lessons that help inform an understanding of children's savings from an institutional facilitation perspective.

Economic Socialization Theory: The Role of Development

Economic psychology emphasizes the role children's development plays in their saving behavior (see Table 3). From this perspective, children pass through developmental stages that begin with a nascent interest in, piecemeal knowledge about, and inconsistent behavior related to money and finances. The stages culminate with a more sophisticated interest, integrated knowledge, and consistent behavior. In other words, children's comprehension of money and finances is initially made up of separate and incomplete pieces of information that become integrated over time (Jahoda & France, 1979; Leiser, 1983). Their behaviors increasingly reveal the maturity achieved from passing through the developmental stages. Interest, knowledge, and behavior milestones measured and achieved at age 5 to 6, 8 to 9, and 11 to 12 detect major shifts in children's development, which reflect distinct stages.

Children's socialization into the world of money and finances becomes evident around ages 5 and 6. At this stage, children can differentiate between coins and other objects and understand that money is related to purchasing; however, they do not yet grasp the complexities of monetary transactions (Berti

& Bombi 1981a, 1981b; Strauss, 1952). For instance, they may insist on using exact change to purchase an item or prefer certain coins based on their shape or color. They may even believe that saving in a bank is consistent with giving away or losing their money (Jahoda & France, 1979; Ng, 1983; Sonuga-Barke & Webley, 1993). Eventually, as children mature, their comprehension of money and finances becomes integrated and they behave accordingly. As a result, children understand complex monetary concepts and can carry out advanced saving behaviors by approximately age 12. For instance, children closer to and older than age 12 can consistently use savings accounts to regulate and invest their money, whereas children younger than age 12 conceptualize banks as a place for storage (Ng, 1983, 1985; Sonuga-Barke & Webley, 1993). From this perspective, children's saving behavior becomes increasingly adept over the course of their development.

Studies from economic psychology focus specifically on children's development and saving (see Appendix E).²³ These studies examine children's saving by involving them in qualitative interviews, observations, questionnaires, and play scenarios between the approximate ages of 5 through 12 (Otto, Schots, Westerman, & Webley, 2006; Sonuga-Barke & Webley, 1993; Ward, Wackman, & Wartella, 1977; Webley et al., 1991; Webley & Nyhus, 2006; Webley & Plaisier, 1998). Otto et al. (2006) conducted a series of studies that illustrate when children pass through developmental stages to become consistent and sophisticated savers. In one study, Otto and colleagues (2006) examined saving behavior in game scenarios for children ages 6, 9, and 12. Children competed the game successfully when they emerged with enough tokens to purchase a toy. In all, 62% successfully completed the game and purchased the toy. Children's saving behaviors were observed throughout the game, including how they navigated temptations like deciding whether to make purchases in the candy store. The most common strategies children use at age 6 were saving by delaying their spending and a combination of saving and spending. Some children at this age made no attempts to save their tokens. All children at age 9 displayed some sort of strategy, most often including saving until reaching their goal. Children at age 12 consistently demonstrated strategies such as a combination of saving and spending and saving by delaying their spending. The strategies children at age 12 used are considered sophisticated because they require a greater degree of foresight and self-regulation.²⁴

Research suggests that children are able to move through developmental stages related to saving more quickly when they have early experiences with money management (Ng, 1983, 1985). For instance, the I Can Save program included treatment and comparison groups of children in kindergarten and first grade who were approximately ages 5 and 6 (Elliott, Sherraden, et al., 2010; Sherraden, Johnson, Elliott, Porterfield, & Rainford, 2007), which is consistent with the initial developmental stage identified by economic psychologists (Sonuga-Barke & Webley, 1993). Children in the I Can Save treatment group received savings accounts, incentives to save, and financial education. When talking about I Can Save, comments from children in kindergarten and first grade revealed partial understandings about money and finances: "they told us not to spend too much money or you might end up owing a lot, like you may just have two pennies" (Sherraden, Johnson, et al., 2007, p. 304). Despite this partial understanding, children saved a mean of \$8 per month in their I Can Save accounts over two-years with the help of their parents' money (or \$21.37 including initial deposits and match incentives). Even this small amount, saved consistently, would result in over \$1,200 saved (excluding interest) by high school graduation. If given early opportunities to save, it appears that children may use savings accounts as a saving strategy sooner. This suggests that children may develop more sophisticated financial knowledge, and their use of more advanced financial behaviors may be accelerated through opportunities to practice their learning.

Financial Socialization Theory: The Role of the Family

For children, saving is almost always connected to a larger social unit or family, and the financial socialization perspective focuses on the role of the family in teaching children about money and finances (Lunt & Furnham, 1996). Financial socialization builds on the commonly held belief that the family is one of the primary institutions in which child development takes place (e.g., Bronfenbrenner, 1979). According to Ozmete (2009), socialization is “the process whereby a person learns the value system, norms and required behavior patterns of a given society in which he belongs” (p. 373). Families facilitate their children’s socialization by offering experiences like giving allowances, opening savings accounts, or teaching them the importance of saving (Kim, LaTaillade, & Kim, 2011; Mandell, 2005).

Children experience socialization indirectly, through observing their parents’ behaviors, and directly, through conversations and practical experiences (Bowen, 2002; John, 1999; Moschis, 1987). Indirectly, parental guidance and self-reflection help children develop skills and strategies such as developing a future time orientation and a habit of saving (Sonuga-Barke & Webley, 1993; Trommsdorff, 1983; Webley et al., 1991). Research suggests that socialization endeavors may be more successful when parents display greater degrees of warmth and involvement with their children (Weiss & Schwarz, 1996). In turn, greater displays of warmth and involvement may be associated with children’s future orientation (Ashby et al., 2011)—a variable commonly linked with saving (Friedline, Elliott, & Nam, 2011; Webley & Nyhus, 2006). Parents or other family members often provide socialization experiences directly by giving an allowance contingent upon chores, supporting children in opening savings accounts, and frequently providing the money for saving (Ashby, et al., 2011; Furnham & Thomas, 1984; Sonuga-Barke & Webley 1993). Given this, at least in part, children’s saving is linked to the nature of relationships in the family (Webley et al., 1991; Sonuga-Barke & Webley, 1993). Some evidence we discuss later in this chapter suggests that these interactions may be constrained in low-income families, given other stressors parents experience.

Families that socialize children into the world of money and finances from a young age provide a context for children’s development. Children pass through distinct developmental stages between the ages 5 and 12, in that their understanding about saving and ability to save becomes increasingly adept and sophisticated. From a developmental perspective, children’s interest in and knowledge about saving emerges at age 5, yet their ability to save is still forming. Their interest, knowledge, and behavior have normalized by age 8 to 9; however, they still may not save with precision or regularity. By age 12, children’s interest, knowledge, and behavior have become integrated and they can save successfully. The role of families may initially be fundamental for teaching children about saving, opening accounts, and making trips to the bank, but this role becomes more peripheral as children reach age 11 or 12 (see Appendix F).

Moreover, from a financial socialization perspective, when and how parents extend socialization experiences to children may relate to children’s savings throughout their lives. In other words, children’s initial socialization may be associated with their saving across the life course primarily based on the success or failure of parents as socializers (Grinstein-Weiss, Spader, Yeo, Taylor, & Freeze, 2011). If parents have encouraged good saving habits, modeled a future-oriented approach to financial decisions, and provided opportunities to save, children may continue to save. If parents have not done this or their attempts have been unsuccessful, poor saving habits may continue into adulthood. In many ways,

financial socialization within the family may establish a pattern on which children build throughout their lifetimes, which may be one of the ways low-income families transmit patterns of disadvantage.

A contextual explanation for financial socialization considers that family socioeconomic background may influence children's socialization experiences and the development of saving behaviors (Ashby et al., 2011; John, 1999; Jorgensen & Salva, 2010; Shim, Barber, Card, Xiao, & Serido, 2010). All existing studies on the relationship between financial socialization and children's saving consider family socioeconomic factors (see Appendix F), such as household income, parents' education, and employment. This contextual explanation has less to do with families' willingness to encourage good savings habits and provide their children with socialization experiences and more to do with their financial capacity to do so. It might be easy to mistake children's lack of saving opportunities as a result of their parents' irresponsibility or shortsightedness. However, from a contextual perspective, one should not associate lack of saving opportunities with parents' irresponsibility, particularly in families of limited financial means. Families that lack financial resources often have limited connections to the financial marketplace (Bricker, Kennickell, Moore, & Sabelhaus, 2012; Grinstein-Weiss et al., 2011), thus limiting their ability to model saving behaviors or to establish savings accounts for their children.

Assessing the Institutional Context of Low-Income Families without CSAs

This section provides an example of what the institutional context may look like for average low-income children and their families when they do not have access to programs like CSAs and the financial education that comes along with that access, using the seven institutional mechanisms outlined in the institutional theory of saving (see Appendix G).

Access

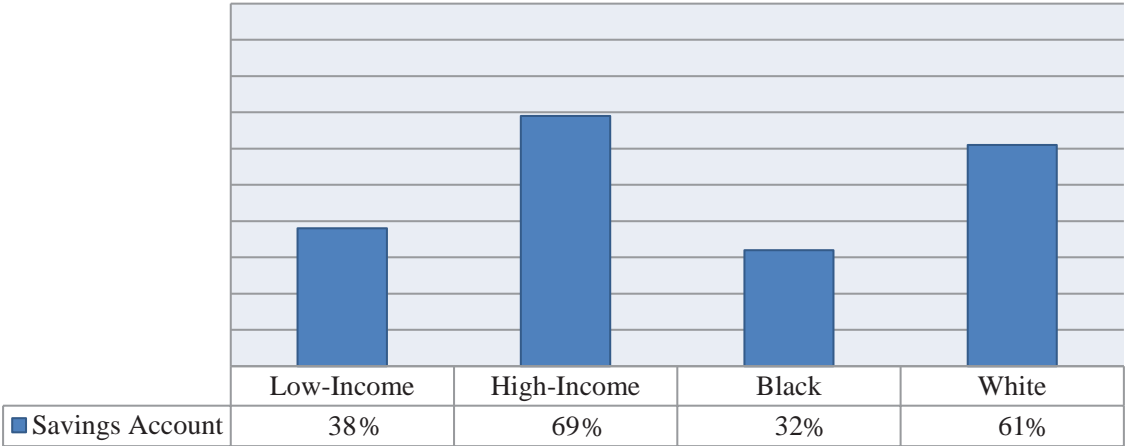
Access refers to the ability of children to connect with formal banking institutions (e.g., a combination of availability, acquisition, and applicability). Of all groups, children are the most vulnerable to exclusion from the formal banking system, especially low-income and minority children. Under the current system, children rely primarily on their parents to provide them with connections to the formal banking system, because they do not have the legal right to open an account without adult approval (Kalyanwala & Sebstad, 2006). Further, they lack both the mobility to get to the bank on their own and a regular income, which limits children's access to banks.

Even given supportive families, banks are often not located where low-income parents and children live (Avery, Bostic, Calem, & Canner, 1997), and low-income parents may be less skilled in navigating banking options because of their history of constrained access to financial institutions. These factors reduce the ability of low-income parents to connect children to the formal banking system. Compounding this lack of availability is the fact that banks have little financial incentive to help increase access among low-income and minority children due to the disproportionately high costs associated with banking such children (FAO, 2002).

Research suggests that low-income children fail to gain access to the formal banking system at the same rate as high-income children. With respect to access to formal banking systems, fewer children between ages 12 and 15 from low-income and racial minority families have savings accounts than do their

counterparts from high-income and racial majority families. There is a 31 percentage point gap in savings account ownership between children from low- and high-income families and a 29 percentage point gap between children from Black and White families (see Figure 10).

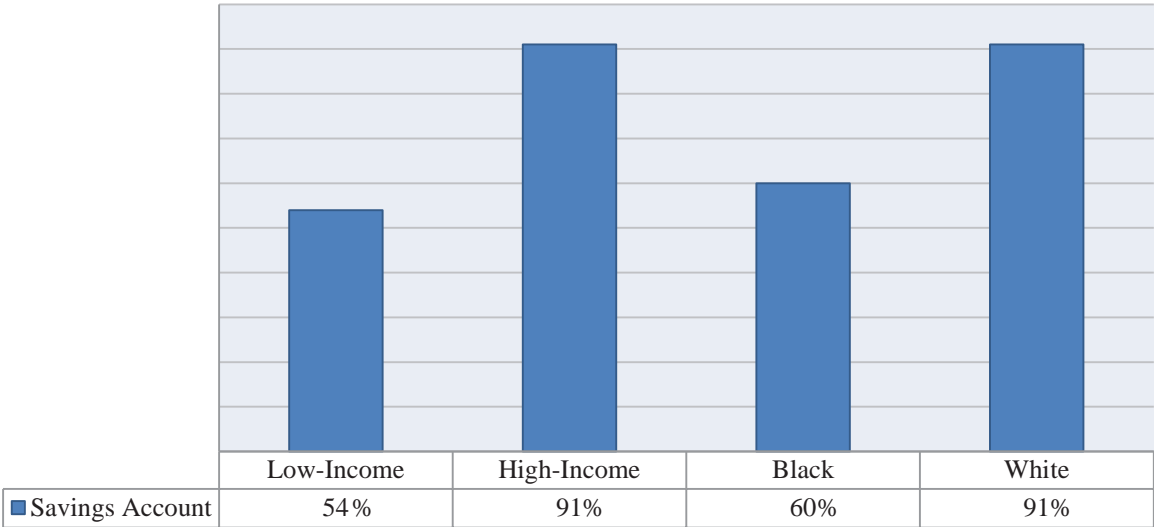
FIGURE 10. Percentages of Children’s Savings Account Ownership by Income and Race (Ages 12 to 15)



Sources. Friedline, 2012; Friedline, Elliott, & Nam, 2012.

This pattern remains in young adulthood between ages 17 and 23. While all groups experience an increase in account ownership between childhood and young adulthood, percentage point gaps actually expand to 37 by income and 31 by race (see Figure 8). In other words, the gap in account ownership by income expands by six percentage points, and the gap by race expands by two percentage points; disadvantaged children make slower advances toward this financial milestone than do their advantaged peers. One might expect gaps to decrease between childhood and young adulthood as opportunities for employment and income increase. However, expanding disparities perhaps indicates that there are compounding effects of structural failings across the life course.

FIGURE 11. Percentages of Young Adults’ Savings Account Ownership by Income (Ages 18 to 22) and Race (17 to 23)



Sources. Elliott, 2012; Friedline & Elliott, 2011.

TABLE 3. Changes in Children's Attitudes and Behaviors During Different Stages of Development, the Role of the Family, and CSAs

Cognitive Capacity for Saving at Different Stages of Development	The Role of the Family	The Role of Institutions (CSAs) as Augmenter and Sometimes Substitute
<p>Separated</p> <p>Formation: Ages 5 to 6 and earlier</p> <ul style="list-style-type: none"> • Developing a basic knowledge of money and finances • Believing saving is socially desirable • Emerging saving strategies 	<p>Fundamental</p> <ul style="list-style-type: none"> • Teaching basic information about saving, banks • Providing socialization experiences and experiential learning like counting money • Modeling saving behaviors • Providing money to save • Providing transportation to the bank, access to formal banks • Encouraging deposits into bank account 	<p>Institution-Facilitated</p> <ul style="list-style-type: none"> • Automatically opening CSAs • Providing initial deposits • Introducing institutional match incentives • Making salient the connection between CSAs and education • Providing regular, easy access to CSAs for deposits • Identifying short- and long-term saving goals • Explaining account restrictions • Teaching basic financial education
<p>Normalization: Ages 8 to 9</p> <ul style="list-style-type: none"> • Integrating knowledge of money and finances • Developing preference for saving • Developing saving strategies 	<p>All of the above, in addition to the following:</p> <ul style="list-style-type: none"> • Teaching more advanced information about saving, banks • Providing socialization experiences like talking about short- and long-term saving goals 	<p>All of the above, in addition to the following:</p> <ul style="list-style-type: none"> • Incorporating basic games that teach financial education concepts and encourage saving • Offering prizes for saving • Sending reminders to save
<p>Performance: Ages 11 to 12 and beyond</p> <ul style="list-style-type: none"> • Integrated knowledge of money and finances • Developed and increasingly advanced saving strategies • Developing advanced knowledge of money and finances, including interest rates and pensions <p>Integrated</p>	<p>All of the above, in addition to the following:</p> <ul style="list-style-type: none"> • Providing socialization experiences like household discussions of finances, budgeting, and long-term saving goals • Encouraging paid work through chores or part-time employment <p>Peripheral</p>	<p>All of the above, in addition to the following:</p> <ul style="list-style-type: none"> • Teaching advanced financial education • Promoting investment, diversification of asset portfolios <p>Child-Facilitated</p>

Information

Information refers to knowledge about policy, service, or product, as well as knowledge that may contribute to successful saving performance. Beverly et al. (2008) write, “For example, to successfully participate in a traditional IRA, a person must know that an IRA is available and that she is eligible. She must also know how to choose an appropriate investment, how to make contributions, how to receive the tax deduction, and, later, how to make withdrawals” (pp. 110). Families are considered to be children’s main source of information on financial issues. However, research shows that low-income families have less financial knowledge (Loibl & Scharff, 2010; Lusardi, Mitchell, & Curto, 2010; Zhan, Anderson, & Scott, 2006) and fewer discussions about family financial matters (Bowman, 2011; Sherraden & McBride, 2010) than do middle- and high-income families. Adults in general perform poorly on financial education tests (Lusardi & Mitchell, 2007), which does not bode well for the quality or accuracy of information they pass on to their children. To the extent to which opportunities to practice financial knowledge also increases these capabilities, low-income parents’ reduced access to financial institutions and limited means with which to save can result in less accumulated information about financial literacy as well.

Incentives

Incentives refer to financial rates of return, as well as nonfinancial “payoffs” for participation (Sherraden & Barr, 2005). Asset researchers commonly define institutional incentives as initial deposits for opening accounts and match contributions. Evidence reveals that these incentives are related to saving (Duflo, Gale, Liebman, Orszag, & Saez, 2006; Mason, Nam, Clancy, Kim, & Loke, 2010; Poterba, Venti, & Wise, 1996; Wheeler-Brooks & Scanlon, 2009). For example, results from a study that examined tax refunds of 13,904 low- and moderate-income H&R Block tax filers found that 17% of those who were offered a 50% match enrolled in a savings initiative and contributed \$1,310; 10% of those offered the 20% match enrolled and contributed \$1,280; and 3% of the control group enrolled and contributed \$860 (Duflo et al., 2006). The relationship between incentives and saving may also hold true for children. Children from low-income families who participated in savings programs reported that initial deposits and match contributions were attractive and incentivized their saving (Scanlon, Buford, & Dawn, 2009; Wheeler-Brooks & Scanlon, 2009). Unfortunately, research shows that low-income families are less likely to use traditional banking and more likely to use alternative forms of banking, such as check-cashing institutions or payday loans (Barr, 2004; Lusardi, Schneider, & Tufano, 2011; Rhine, Greene, & Toussaint-Comeau, 2006). These alternative forms of banking are actually punitive, because they offer disincentives to save. As a result, many low-income parents may not be able to provide children with the connections they need to receive the proper incentives required to promote savings. Over time, experiences with institutions that provide disincentives instead of positive rewards for savings behaviors may result in parents who do not encourage their children to save.

Facilitation

Facilitation refers to any form of assistance in saving. In the case of children, an important aspect of facilitation is whether parents encourage them to open a bank account. Children whose parents encouraged them to save using a bank account save more than others (Webley & Nyhus, 2006). Descriptive data tell us, however, that low-income children (38%) are far less likely to have a savings

account than are higher-income children (69%) (Friedline, 2012). In addition to encouraging children to save in a bank account, families can facilitate saving by giving children an allowance, which also increases the likelihood of saving (Furnham, 1999). However, findings are mixed regarding whether disparities in providing an allowance vary by income. Mortimer, Dennehy, Lee, and Finch (1994) find that income is associated with whether children receive an allowance in the first place. In a sample of high-ability children, Miller and Yung (1990) find no evidence of differences in receipt of allowance by income, but they do find evidence that children living with mothers with higher levels of education were more likely to receive an allowance than those living with mothers with lower levels of education. Overall, findings seem to suggest that low-income children may be less likely to receive an allowance than are high-income children.

Expectations

Expectations are embodied in institutional features such as social pressure of staff and peers (Loibl et al., 2010; Loibl & Scharff, 2010). Expectations refer to the rules, norms, or goals that govern saving and represent intrinsic or extrinsic suggestions about desired saving (Beverly et al., 2008; Sherraden & McBride, 2010). However, low-income families are more likely to distrust the formal banking system than are middle- or upper-income families (Barr & Blank, 2009; Retsinas & Belsky, 2005) and tend to pass these perceptions and practices onto their children (Grinstein-Weiss et al., 2011; John, 1999; Moschis, 1987; Shim et al., 2010; Shim, Xiao, Barber, & Lyons, 2009). In one study of the unbanked (who are disproportionately from lower-income households and racial/ethnic minority groups), distrust in financial institutions is the fourth most commonly reported reason for not having an account, after lack of funds, poor credit history, and high fees (Lyons & Scherpf, 2004). When children and their families save money in a formal banking institution, the meta-message asserts, “We save” for the things we need and want.

Restrictions

From an institutional perspective, putting money into savings accounts should be easy (facilitation), while restrictions should prevent frequent withdrawals. Sherraden and Barr (2005) point out two main types of restrictions: those on access and those on use. Saving at a formal bank is a key way that people restrict their access to their money (Sherraden & Barr, 2005). For example, banks typically limit savings account withdrawals to six times per month without penalties (Chan, 2011), meaning that these accounts are intended to be used for accumulating savings and frequent withdrawals are restricted and discouraged. As low-income children are less likely to have a bank account (e.g., Friedline, 2012), one can conclude that they are also less likely to benefit from the restrictions banks provide. Over time, the lack of restrictions may result in less asset accumulation and may also make children’s savings more vulnerable to encroachment by others, particularly given the more frequent financial crises that occur within low-income households.

Security

Security refers to having a safe place to hold money. Low-income families are far less likely to connect their children to a federally insured bank than are those with high incomes (Friedline, 2012). Federally insured banks provide people with safety for their deposits, currently up to \$250,000. Having money in

a bank also protects savers from such basic risks as theft and natural disasters, protections that savings at home lack. Not having a bank account can be particularly harmful to low-income families and children. Research shows that they are more likely to have their savings lost due to family and friends if the money is saved in a house or other unsecure location (Chiteji & Hamilton, 2002). For example, the New York Times, Huffington Post, and other news outlets recently covered the story of a 12-year-old New Jersey boy who stashed his \$300 life savings in an old computer in an attempt to hide the money from his sister, only to find that his mother recycled the computer while he was at Boy Scout camp (Barron, 2012). A few years ago, news outlets reported on a young woman from Tel Aviv who wanted to surprise her mother by purchasing her a new mattress, only to find out that when she threw out the old mattress, she also threw out the \$1 million life savings hidden inside (Goldiner, 2009).²⁵

CSAs Can Improve the Institutional Context for Saving

From an institutional perspective, as articulated here, when the family is the primary institution connecting children with the adult economy, children walk into the pattern that the family has established. Based on this framework, we suggest that low-income children start off in an unfavorable position in regard to their families' institutional capacity as financial socializers. This all but assures that low-income and minority children will not save as much as their high-income, White counterparts. However, CSAs may be able to help level the playing field when parents lack the financial knowledge and institutional connection required to be effective socializers.

CSAs have been proposed as a potentially novel and promising savings program meant to promote low-income children's savings and asset accumulation (Boshara, 2003; Goldberg, 2005; Sherraden, 1991). According to Loke and Sherraden (2009), an advantage of asset-based policies targeting children is that they "may have a multiplier effect by engaging the larger family in the asset-accumulation process. In addition to children saving and learning about saving, members of the extended family may learn from this process, and parental expectations for children may also be positively affected" (p. 119). Simply put, CSAs provide children and their families with a strategy for how to pay for college and give them the institutional support needed to carry it out.

This institutional perspective has implications for the design of CSAs: they should be opened automatically for children at an early age, paired with financial education; facilitated by features like direct deposit and incentivized matching contributions; identify expected savings goals; and include penalties for making withdrawals for unapproved expenses.²⁶ Many of the successful policy structures that higher-income individuals use to accumulate assets today (e.g., 401[k] or 529 plans) use at least some of these mechanisms to significant effect.

CSAS MAY ADDRESS HISTORICAL WEALTH INEQUALITIES

In the previous section we discussed the institutional context without a CSA program. In this section we discuss how the institutional context of low-income children and their families can be altered by introducing CSAs. CSAs are not meant to replace families or formal banking institutions; instead, they are meant to empower low-income families and their children to negotiate with, influence, control, and hold accountable formal financial institutions.

As we discussed in Chapter 4, a part of what CSAs are meant to do is change the distributional consequences of the saving rules for low-income children and their families and change their bargaining power with financial institutions. Many CSAs provide low-income families and their children with additional resources to save through initial deposits, incentives, and matching contributions. These features make the opportunity costs for low-income individuals—who have less money to spend on basic necessities—appear worth making because of the return they are able to get on saving. For example, a well-known CSA program—the Saving for Education, Entrepreneurship, and Downpayment (SEED) national research demonstration that operated from 2003 through 2007—incorporated match incentives, financial education, and withdrawal restrictions (Sherraden & Stevens, 2010). In SEED, low-income children ages birth to 23 and their parents were invited to open savings accounts at 12 locations nationwide.

A key question for SEED was whether the institutional mechanisms incorporated into CSAs could facilitate saving and encourage asset accumulation for children and their parents (Mason et al., 2010). Accounts in SEED came with saving incentives, including initial deposits of up to \$1,000, additional deposits for milestones like having a birthday or attending financial education workshops of up to \$1,000, and dollar-for-dollar savings match incentives of up to \$3,000 (Mason et al., 2010). SEED allowed child participants to withdraw their savings for asset purchases, but generally the accounts were geared toward long-term investments, such as a college education. Incentives were included in the project to encourage participants to save more. After about five years, the mean amount participating low-income families saved was \$1,518, a strong endorsement of CSAs as a vehicle to promote asset accumulation by the poor.

The SEED for Oklahoma Kids (SEED OK) research experiment expanded on findings from the SEED research demonstration by randomly assigning savings accounts to newborns in Oklahoma in 2007 (Beverly, Kim, Sherraden, Nam, & Clancy, 2012; Zager, Kim, Nam, Clancy, & Sherraden, 2010). In SEED OK, accounts for newborns and their parents in the treatment group were automatically opened in 529 college savings accounts with an initial \$1,000 deposit. In addition, those in the treatment group were encouraged to open another 529 account with an initial \$100 deposit; income-eligible families could qualify for match contributions. Treatment group participants could decline the account that was automatically opened for them, but only one of the 1,340 eligible participants did so (Nam et al., 2013).

CSAs Transform the Institutional Context of Low-Income Families

In a context where formal banking institutions exist and CSAs are absent, children living in low-income families grow up experiencing an institutional context that affords them few opportunities to access savings accounts and may even offer disincentives to save. Moreover, the cognitive expectations these children develop regarding saving revolve around external institutions, rather than their internal capability. Given this, we suggest that the formal banking system is ill-equipped to address the historical wealth inequality that exists in America (e.g., Oliver & Shapiro, 1995; Shapiro, 2004). Further, if assets are an important part of moving people out of poverty, this system is also ill-equipped to reverse the cycle of poverty in America. Therefore, we suggest that institutional structures that allow minority, low-income, and even children to join the mainstream market are needed.

CSAs create an institutional context responsive to the challenges facing and the efforts of low-income

children. As identified in Table 4, some CSAs automatically open a savings account for low-income children and provide convenient ways for them to interact with their account, such as through a school-based program. CSAs encourage and incentivize low-income children's saving by eliminating required minimum balances and providing them with money to save through, for example, matches and additional deposits on birthdays and the like. Moreover, most CSAs include financial education programs that give children and families experience in managing a long-term investment. Children who can connect financial education with financial products also score higher when tested on financial knowledge (Beutler & Dickson, 2008; Grody, Grody, Kromann, & Sutliff, 2008; Johnson & Sherraden, 2007; Webley, Burgoyne, Lea, & Young, 2001). According to Leiser and Ganin (1996), higher levels of financial capability in children may positively influence their long-term economic beliefs, attitudes, values, and financial knowledge and behavior. By saving for education, for example, children may learn more about the formal workings of the economy, including banking, interest, and developing and sticking to a budget (e.g., Elliott, Sherraden et al., 2010), even as they are developing a future orientation and financial and educational attitudes consistent with long-term success.

TABLE 4. The Institutional Context of Formal Banking Institutions for Low-Income Families and Their Children

	Low-Income Families	Low-Income Children	Formal Banking Institutions	CSAs
<i>Access</i> Ability to connect with formal banking institutions	Open savings accounts at formal banking institutions less frequently Use banking institutions that are most convenient or geographically accessible, often alternatives like payday lenders	Receive limited opportunities to open accounts, given their families' less frequent banked status Require locating and traveling to banking institution on their own	Open accounts at the initiation and approval of an adult custodian Develop in-house services for customers to interact with accounts	Automatically and universally open savings account in child's own name Receive opportunities to interact with the account Make the account available by offering it as a school program
<i>Information</i> Financial knowledge about policies, services, or products that contributes to saving	Lack financial knowledge about policies, services, or products related to saving Lack experience applying financial knowledge to saving	Receive limited financial knowledge from families about saving and banking institutions Receive limited opportunities to apply financial knowledge to saving of their own	Provide no or very limited opportunities for financial education combined with saving in account	Develop financial capability through a combination of financial education via classroom instruction, online activities, and other workshops and by applying education to savings accounts

	Low-Income Families, cont.	Low-Income Children, cont.	Formal Banking Institutions, cont.	CSAs, cont.
<i>Incentives</i> Financial and nonfinancial rates of return for saving	Receive disincentives when there is insufficient money to maintain initial deposits, minimum balances, etc. Earn no interest on small-dollar savings	Lack their own money to save Receive disincentives when there is insufficient money to maintain initial deposits, minimum balances, etc. Earn no interest on small-dollar savings	Require high initial deposit (\$300 on average) to open account Give average rate of .01% annual interest on savings Charge regular maintenance fees to maintain account	Receive initial deposit at account opening Earn matches on deposits (i.e., interest rate of $\geq 50\%$) Receive rewards for achieving milestones
<i>Facilitation</i> Any form of assistance that makes saving easier	Subject to penalties if no income to save Use direct payroll deposit if income- and employment-eligible	Subject to penalties if no income to save Restricted from using direct payroll deposit given limited opportunities to earn regular paychecks	Levy penalties if no income to save Provide direct payroll deposit if income- and employment-eligible	Provide income to save through incentives Provide opportunities for deposits that make saving easy for children
<i>Expectations</i> Intrinsic and extrinsic norms and pressures about desired saving	Struggle to make regular, consistent deposits Encounter pressures to spend and consume for competing, daily needs	Struggle to make regular, consistent deposits Experience spending and consuming for competing, daily needs rather than saving	Require minimum balance thresholds (i.e., minimum monthly balance of \$300) Close account after extended period of inactivity	Encourage regular deposits through prespecified amount thresholds (i.e., \$10 per month) Encourage development of expectations for the future
<i>Restrictions</i> Limitations placed on control over savings in the account	Access savings whenever needed for any expense Subject to penalties for too frequent withdrawals Struggle to accumulate savings	Access savings whenever needed for any expense Subject to penalties for too frequent withdrawals Struggle to accumulate savings	Permit savings in the account to be used for any expense or purpose Permit unrestricted withdrawals from savings at any time for any expense Transfer or close account after too many withdrawals	Dedicate savings in the account for education, home ownership, small-business start-up, or retirement expenses Limit withdrawals for early and unapproved expenses Permit withdrawals after age 18 for preapproved expenses
<i>Security</i> A safe place to hold savings	Develop distrust of formal banking institutions	Develop ambivalence toward and distrust of banking institutions Experience savings as unprotected from families' withdrawals for expenses and emergencies	Federally insure savings in the accounts Name an adult custodian as co-owner on the account	Federally insure savings in the accounts Name child as owner on the account, along with a third-party custodian

Chapter 2 focused on the internal mechanisms related to children's engagement in school and how CSAs, a type of institution, may affect this process, so we only discuss key points not made in Chapter 2.

The Institutional Facilitation Process: Children as Agents

An institutional facilitation model contributes in several important ways to our understanding of how children save that may have implications for how CSA programs are designed. Unlike the economic psychology and financial socialization models of children's savings, the institutional facilitation model emphasizes the role of children as critical actors in the development of their own saving-related attitudes and behaviors. An institutional facilitation model builds on the institutional model, used by asset theorists and described in the previous section, by providing an explicit explanation of the role of the individual in the saving process. Further, it helps explain how external institutions are integrated into the self.²⁷

In Chapter 2 we introduced the theory of institutional facilitation. From an institutional facilitation perspective, children are critical agents in their own development, and institutions can augment family capacity or be a substitute for parents when they are incapable of fulfilling their role as financial socializers and intermediaries to the formal banking sector. With respect to paying for college, being understood as an agent might be more important for low-income children than for high-income children, since the former tend to have more decision-making power over how to pay for college than do their high-income counterparts (Sallie Mae, 2012). Among low-income students, 33% of their parents decide how to pay for college, compared to 60% of high-income parents (Sallie Mae, 2012). Without CSAs or other resources for college, low-income children struggle with this decision-making. Their parents contribute far less to paying for college than do their high-income counterparts (Elliott & Friedline, 2013; Sallie Mae, 2012) and are less able to answer their children's finance-related questions or provide accurate college cost information (Horn et al., 2003).

Children make both self-efficacy and institutional efficacy judgments (see Chapter 2) about their ability to pay for college.²⁸ Because all children by definition are attending college for the first time, they must look to models as a way to attain initial information about college and how to pay for it. From an institutional facilitation perspective, doubt requires making an efficacy judgment (i.e., regarding whether an individual has the ambition and ability to accomplish something). Where there is no doubt about the outcome of one's performance, there is no longer a need to make an efficacy judgment. However, in the case of college attendance and other uncertain situations, disadvantaged students may need support in crafting these efficacy judgments. CSAs provide the information and institutional support needed for children to form efficacy judgments and, ultimately, be successful.

Moschis (1987) finds that by the time children reach school age, the foundation of their values, beliefs, attitudes, expectations, efficacy, and motivation about money have already formed. Early experiences with financial failures and lack of positive role modeling help shape the values, beliefs, attitudes, expectations, efficacy, and motivation about money of many low-income children. However, the reality is that many low-income and minority children receive situational cues that reinforce the notion that they are ill-equipped to make good financial decisions.

These early experiences may only predispose children toward developing low financial efficacy beliefs; children have not yet begun to internalize these beliefs. Around fourth grade, they begin to understand

that performance is determined—at least in part—by institutions and not just by their own effort and ability. In this sense, institutions can also take on the role as modeler and provide children with an important part of the initial information they need to begin to assess their own financial efficacy more accurately. Including institutional information may limit the range of behaviors children perceive as available to them if institutions do not respond predictably to their investment of effort and ability (e.g., Bandura, 1997; Schunk & Pajares, 2002).

From an institutional perspective, children repeat the process of making judgments and performing a pattern of behavior until they feel they can accurately predict their ability to bring about future outcomes, such as paying for college. As discussed in Chapter 2, when children come to believe that a pattern of behavior has predictable results, they form and internalize cognitive expectations as part of an identity and come to see or not see themselves as college-savers. So, when financial institutions are responsive to children's effort and ability (i.e., provide children with the resources they need), children are unlikely even to notice the facilitation role that institutions play in saving; they are simply likely to think of themselves as savers. When financial institutions properly function, they can be taken for granted. To illustrate, institutions are like breathing: they are taken for granted when they are functioning properly but are an essential part of performing any task successfully. However, if breathing stops or is interrupted, children are forced to think about the essential nature of breathing for their survival (such as in the case of an asthma attack). Similarly, children may not notice the facilitating role of institutions unless it is interrupted or is not present in their lives. As we have already noted, this is disproportionately the case in low-income and minority children's lives.

The cognitive expectation process argues for CSA programs that start as early as birth. These help children become predisposed to forming positive expectations about saving in financial institutions and about their ability to save. In the case of low-income and minority children, the account side of the ledger might be able to address this reality completely when it comes to learning financial concepts or participating fully in CSA programs. CSA accounts provide low-income children with an introduction to the mainstream banking system, maybe for the first time, in a somewhat controlled environment where success is more likely than failure. For example, because their money is matched, they are more likely to accumulate savings than they would be if they had an account in a mainstream bank. Even if they do not accumulate a large sum, they can still learn the basic concept that banks help money grow. Further, mechanisms like restrictions help protect their money from being spent.

If a CSA program is started later in the child's life, automatic enrollment may be even more important. Automatic enrollment interrupts the normal cognitive response to saving the child has formed, if that response has been to disengage. Once in a CSA program, children might be put in a position to have experiences with saving that contradict their previous experiences. The CSA program might provide the child with an opportunity to make new efficacy judgments, with different experiences, which might lead to a new set of behaviors being adopted as part of a new identity—an identity as a saver.

Trust and CSAs

A key principle of institutional facilitation is that a sense of efficacy is not always (perhaps even seldom) achieved through direct control by the individual, nor can it be. As Sen (1999) writes, individuals typically do not have direct control: "In modern society, given the complex nature of social organization,

it is often very hard, if not impossible, to have a system that gives each person all the levers of control over her own life. But the fact that others might exercise control does not imply that there is no further issue regarding the freedom of the person; it does make a difference how the controls are, in fact, exercised” (p. 65).

External resources become a part of the self when we exercise power and control over them (Belk, 1988). When children are forced to rely on third parties, such as parents or institutions, they must trust them so they will be integrated into the self, augmenting what the self can do. In the case of parents, a problem for low-income children is that, quite apart from the warmth of their relationships with their parents, they have not learned to trust their parents when it comes to financial matters. Therefore, CSAs should be under the control of the child, establishing a direct, trusting relationship with formal banking institutions.

CONCLUSION: SAVING AS A CHILD AND POSTCOLLEGE EFFECTS

Research has begun to examine how children can achieve positive financial outcomes beyond the college years. We see this as a key body of emerging research in need of much more investigation (see Appendix H; also see the summary of this research at the end of this chapter). This research indicates that children who have savings may be more likely to build assets as adults. In other words, by having savings, children may develop a high level of financial capability that carries over into adulthood. Thus, children who save while growing up and continue to save and make healthy financial choices, will experience more positive financial outcomes for themselves and their families. They develop relationships with financial institutions, and they experience these institutions as helping them to achieve their financial goals. They build the knowledge and skills needed to navigate economic decisions, and they access financial arenas with the potential to aid their economic mobility. It appears that having savings as a child may not only improve their prospects for attending and completing college, which in turn is widely believed to be related to higher earnings over the course of one’s life—it may also improve a child’s ability to accumulate assets as an adult. This has implications not only for asset accumulation, but also the transmission of poverty: savings attitudes and practices display high levels of inequality by race and income. Asset accumulation not only could be a means of ensuring that children become financially self-sufficient adults, but also that today’s generation of low-income and minority children are better off than their parents.

KEY POINTS

Traditional theories of savings would lead observers to believe that low-income children are unlikely to accumulate any assets, given the limited incomes available for saving and their parents' limited ability to transmit adequate financial knowledge and skills. However, empirical evidence and institutional theory suggest that low-income children can, indeed, save and that crafting structures that can facilitate their saving, including children's savings accounts, may help savings to serve as a path to economic mobility for these disadvantaged children.

- Traditional children's savings theory views low-income children as unable to save because their parents lack wealth and financial knowledge, presumed to be prerequisites for children's asset accumulation.
- Economic socialization theory emphasizes the role of child development in children's progression toward more sophisticated financial understanding. Studies in this vein have found that even very young children are capable of understanding the connection between saving in CSA structures and the likelihood of achieving future education and life goals.
- Financial socialization theory emphasizes the role of families in shaping children's financial knowledge and behavior. Thus, because low-income parents have fewer opportunities to model asset accumulation, they may be less capable of transmitting this knowledge and behavior to their children, despite a desire to do so.
- Viewing children as economic actors in their own respect (as has been the case in advertising) suggests recommended features for CSAs: automatic enrollment, starting as early as birth; matching contributions; clear savings goals; restrictions on withdrawals for noneducation-related purchases; and financial education.
- Understanding how building assets may shape children as financial actors reveals another advantage to policies that provide opportunities for saving over those advancing reliance on student debt.

SUMMARY OF POSTCOLLEGE FINANCIAL HEALTH FINDINGS:

Six studies examine the relationship between household assets and children's financial health. Key findings are summarized (for full review see Appendix H):

- **Asset Account Ownership:** Five out of 6 studies include any type of children's savings or other asset account as an outcome, including savings, checking, stock or bond, money market, mutual fund, and retirement accounts; credit cards; certificates of deposit; and total account ownership.
 - o All 5 studies find that a household asset is a significant predictor of any asset account ownership for children, though findings vary based on the type of savings or asset account.

	Number of Studies Including Children's Savings or Other Asset Account Ownership as an Outcome	Number of Studies Finding Household Asset Significant in Any Model
Savings account	5	3
Checking account	1	0
Credit card	1	0
Certificate of deposit	1	0
Stock or bond account	2	2
Money market account	1	1
Mutual fund account	1	1
Retirement account	1	1
Total account ownership	2	1

- One study out of the 5 that find a household asset to be significant has mixed results.
 - o Differences by race:
 - Net worth and parents' savings account for child are not significant for Black children.
- **Nonfinancial Asset Ownership:** One out of 6 studies includes any type of children's nonfinancial asset ownership as an outcome, including vehicle and home ownership.
 - o Household assets are not a significant, positive predictor of either children's vehicle or home ownership.
- **Savings or Asset Accumulation:** Four out of 6 studies include any type of children's accumulated savings or other asset as an outcome.
 - o All four studies find that a household asset is a significant predictor of any savings or asset accumulation for children.
- **Debt Accumulation:** One out of 6 studies includes any type of children's accumulated debt as an outcome.
 - o Household assets are a significant predictor of debt accumulation for children when including student loans.

CHAPTER 6

POLICY DISCUSSION

by Melinda Lewis, William Elliott, Reid Cramer, and Rachel Black

OVERVIEW

Today, the two major policies to help families afford college do not work well enough for poor families. Extending student loan opportunities leaves these families and their students with crippling debt. Meanwhile, asset-building strategies such as 529 college savings plans primarily help wealthier households. These divergent policy trends have eroded higher education's ability to serve as an arbiter of equality in U.S. society, particularly in light of reduced public commitment to educational institutions and the resulting increases in college tuition.

Demonstration projects and state and local government programs demonstrate the effectiveness of children's savings accounts (CSAs) to expand savings opportunities for college. Ultimately, however, only a federal policy can ensure that all children have access to this opportunity. Federal legislation should design CSAs with several key features: universality, progressive benefits, lifelong duration, and asset building.

THE PRECEDENT FOR A NATIONAL CHILDREN'S SAVINGS ACCOUNT POLICY

Over the course of more than 20 years of determined investigation, experimentation, and scholarship (Adams, Nam, Williams Shanks, Hicks, & Robinson, 2010), children's savings accounts (CSAs) have emerged as an asset-building policy that has the unique potential to reimagine effective financial assistance and to resonate within the current political context. Born out of the asset-building framework, which identifies financial inclusion as a necessary complement to consumption-based welfare, CSAs are gaining traction today largely on the basis of their demonstrated potential to influence educational outcomes. As a vehicle capable of increasing academic expectations and resources to pay for college, CSAs offer a stark contrast to the current model of financing higher education, which provides assistance primarily at the point of college enrollment and seeks mainly to improve affordability.

Over the last few decades, higher education has increasingly been seen as an individual pursuit with benefits concentrated on the college graduate, rather than on the economy or nation as a whole. This belief has been translated into higher education policy, which has moved decidedly in the direction of placing cost burdens on individuals and families and away from societal responsibility (Elliott & Friedline, 2013).

Asset strategies can be conceived as balancing individual and collective interests (Elliott, 2012a). Approaches like CSAs, which can improve educational and economic outcomes for disadvantaged

children through deliberate investments within an ideological framework that emphasizes individual responsibility, represent real political prospects for progress.

Moving beyond demonstrations and instituting universal and progressive public policies can ensure that CSAs send the message to children, including those in low-income families, that “we are in this together,” rather than “you’re on your own” (Bernstein, 2010, p. 1599). This broadens the case for CSAs. They are now more than vehicles for engaging low-income children with financial institutions, cultivating savings habits, or providing additional financial resources; they may represent a solid starting point for reshaping higher education policy and improving educational outcomes.

Versions of the CSA model have been implemented in recent years at both the state and local levels in the United States as well as internationally. These efforts establish precedence for a national CSA policy and diverse experiences to inform its design.

North Dakota and Maine offer savings accounts to children in those states at birth through their system of 529 accounts. In 2010, the City of San Francisco became the first municipality to create universal college accounts for public school students. Localities initiating such efforts are clearly convinced of the collective benefits of investing in children’s human capital development.

Private philanthropy has played a critical role in advancing asset alternatives to financing college education for low-income children as well. Initiatives like that supported by the 1:1 Fund in Jackson, Mississippi, and elsewhere have demonstrated many of the same outcomes described in this report: young children imagine a new trajectory for their futures, parents increase their involvement in their children’s educational experiences, and families prepare financially and academically for college as a real possibility instead of a distant dream.²⁹ Other efforts have incorporated children’s savings components into youth service, employment, and educational experiences, largely funded with private dollars. Evaluating these efforts will add to the knowledge base surrounding the educational and other effects of children’s savings, while, at the same time, providing children with real opportunities to chart a better future.

Around the world, CSAs are variously institutionalized as part of nations’ economic opportunity structures, piloted as alternative approaches to welfare provision, and used as levers to help families move out of poverty (see Appendix I). The expanded scale and variation of implementation of many other countries’ CSA policies can offer some significant insights into how low-income households engage with children’s savings opportunities and how policy vehicles can facilitate widespread asset accumulation. Some countries, such as Singapore, Hungary, and Canada, have national CSA policies, either universal or targeted (Cheung & Delavega, 2011). Some have developed regional efforts, capitalized by national or local funding. Additionally, many nations have developed policies that facilitate children’s savings, not by directly investing in these accounts themselves, but by changing policies about asset treatment within welfare eligibility or by providing financial education to encourage low-income individuals to take advantage of savings incentives offered by nongovernmental or commercial entities. Other differences include income and age eligibility, type and amount of government contributions (initial seed deposits, matches, incentives for meeting educational goals), and strategies to engage parents in saving (Cheung & Delavega, 2011).

Similar to the U.S. policy context, there is international debate about whether CSAs are best approached as a targeted intervention to improve educational and financial trajectories for low-income children, as more universal entitlements, or as conditional transfers (Cheung & Delavera, 2011). Few of these countries say that the explicit rationale for child savings efforts is to improve educational outcomes, rather to eradicate poverty (Cheung & Delavega, 2011). Because poverty alleviation is their primary purpose, the 10 countries with national CSA policies target populations of low-income children. Some, such as the UK, have provided universal programs with additional benefits to those in poverty (Cheung & Delavega, 2011).

While child poverty in the United States has risen in recent years and continues to be a significant problem, analysis of the current political climate suggests that CSAs may have the greatest momentum in the domestic policy context when they are explicitly linked to improved educational outcomes. There is evidence that international CSA efforts have increased asset holding by low-income children—and children generally, in more universal policies—with fairly high uptake rates in some countries (Loke & Sherraden, 2009). Evaluation can demonstrate that CSAs are effective in increasing children's attachment to financial institutions and access to total assets. To date, however, there has been relatively little research about the extent to which these policies are reducing poverty among participants specifically and throughout the national population in general. Research about their effects on economic and educational outcomes can further inform policy developments in the United States and elsewhere.

DESIGNING A NATIONAL CSA POLICY

Demonstration programs involving different low-income populations around the United States have proven that, given the right conditions, institutional features, and incentives, poor people can, will, and do save (Schreiner & Sherraden, 2007). Unfortunately, it is just as clear that the current vehicles for children's and families' asset accumulation—401(k) accounts, 529 plans, traditional home mortgages, and standard investment products—do not meet the savings needs and aspirations of low-income Americans (e.g., see Clancy, Lasser, & Taake, 2010, regarding 529 plans). Inclusive asset-building policies must reduce barriers to saving and provide opportunities and incentives to save. Pursuing these desired outcomes requires attention to policy features likely to maximize the successful saving of low-income children and families.

Individual Development Accounts (IDAs), first proposed by Michael Sherraden (1991) at the Center for Social Development (CSD) to help low-income families build assets and enter the financial mainstream, have advanced the theory and practice of asset-based antipoverty policy and provided a foundation for a national CSA policy. Indeed, there is evidence that participation in IDA programs has tangibly improved the well-being of children in these families, further solidifying the connection between asset security and child outcomes (Lerman & McKernan, 2008). IDAs are an innovative way to help build assets among the poor, and their impact has demonstrated the potential of low-income saving, while charting a path toward institutionalization.

The successes of IDAs have led to significant policy investment in IDAs. The Assets for Independence (AFI) Act, passed in 1998 (P.L. 105-285), established a federal grant program for asset-building programs. There are over 200 AFI-supported IDA programs across all 50 states (U.S. Department of Health and Human Services, 2012). Through AFI, families save in IDAs to meet expenses such

as homeownership, microenterprise, or postsecondary education. Seen as part of this asset-building continuum, CSAs could be part of a national savings strategy, beginning with accounts at birth and including efforts to enable young workers to build assets—in part by reducing their dependence on student debt—and to help people save for retirement (John, 2010).

There are clear limitations in the IDA design, however, that argue against using it to deliver a national CSA policy. Policy reforms are needed to bridge the gap between these savings instruments as proposed—universal, opened at birth—and as implemented—mostly short-term and targeted only to certain low-income populations. Because of the longer timeline required to save for higher education in most instances, and because the greatest effects of saving for low-income children seem to hinge at least in part on the existence of this dedicated account over their academic careers, the IDA vehicle appears to be inadequate to yield the significant educational outcomes envisioned in discussions of CSAs.

The research linking assets and educational outcomes, much of which is detailed in this report, has motivated policymakers to pursue children's savings opportunities and has informed the development of particular institutional features, which, collectively, can help to ensure that children, their families, and society glean maximum benefit from this promising asset-based approach.

Over the past decade, a consensus has emerged around the key features of CSA policy: universal scope, lifelong duration, progressive benefits, and asset accumulation (Cramer & Newville, 2009). This broad policy agreement represents the outline of a legislative framework and the foundation for advocacy in pursuit of CSA policy as a vehicle for improving children's educational opportunities and long-term economic security. We discuss each of these features in the next section.

KEY FEATURES OF EVIDENCE-BASED CSAS

Universal Scope

There are political and theoretical arguments in favor of including every child of a given age—ideally, at birth—in a CSA policy. Such inclusion is important for maximizing the economic and educational benefits of asset building, since even children in higher-income brackets may benefit from the intentional nature of CSAs (Cramer & Newville, 2009). Additionally, since we now know that individuals and households tend to move in and out of official poverty ranks, a universal policy approach is better suited to a more fluid understanding of financial risk and well-being (e.g., Rank & Hirschl, 2001). Public opinion research has made clear that, while there is considerable embrace of universal children's account proposals intended to cover all children, there is not as much support for accounts only for low-income families (Goldberg et al., 2010). Given that CSAs are envisioned as part of a shift toward an investment approach to long-term family economic security (Cramer & Newville, 2009), modeling CSA policy on the principles of collective benefit and responsibility that undergird such entitlements as Social Security makes political sense. Additionally, including everyone in CSAs might underscore the stake we all have in each other's prosperity, which is particularly true when it comes to global competitiveness and the educational outcomes CSAs can deliver.

Universality, in this policy context, also means inclusiveness, or meaningful access to asset accumulation by low-income individuals who otherwise may not have truly equitable opportunities (Loke &

Sherraden, 2009). Evidence from CSA policy around the world suggests that inclusivity is elusive, since nowhere are participation rates 100% or benefits distributed completely equally (Loke & Sherraden, 2009). This speaks to the need for features such as automatic enrollment, concerted outreach and education strategies, and special incentives for lower-income households, to avoid a “universal” CSA policy turning into another asset development investment that disproportionately benefits those already advantaged. Indeed, it is the truly universal nature of CSAs, as imagined, that distinguishes them from existing vehicles for savings, such as 529 plans, and clearly characterize their unique contributions to U.S. goals of economic security and educational excellence (Cramer, 2010).

The platform used to deliver CSAs may be the most important variable for achieving a truly universal policy. As conceived in the ASPIRE Act, a savings account is set up for each child at birth and seeded with an initial deposit. Since the account would be issued to all children, this policy would circumvent barriers to account ownership that low-income families traditionally face and would give every child an ownership stake in his or her educational future. Variations on this construct present other advantages that should be considered, as well.

A leading alternative to the ASPIRE model is leveraging the existing infrastructure of 529 accounts offered by the states to provide children with an account. Another option is issuing an account as students enter the public school system, as is currently in practice through the Kindergarten to College program in San Francisco and will begin in the fall of 2013 in the College Savings Account Program in Cuyahoga County, Ohio. While each of these approaches has advantages and drawbacks, analyzing their comparative merits through the lens of universality suggests some critical policy considerations.

If 529 plans are to be the vehicle for CSAs in the United States, some key policy changes are needed. More technical changes, including national administration, low initial deposit requirements, and automatic enrollment, would help to increase participation among the low-income households underrepresented in 529s (Goldberg et al., 2010). Currently, SEED for Oklahoma’s Kids is testing this approach in a demonstration funded by SEED, which automatically enrolled randomly selected Oklahoma families in the state’s 529 plan, with initial deposits, matching contributions, and tax advantages offered on a sliding scale (Goldberg et al., 2010).

Bundling a universally accessible platform with other key features to maximize participation, such as automatic enrollment, is critical. Maine, for example, offers a children’s savings account through its 529 system for every child born in the state. However, parents must opt in to participate. As a consequence, initial take-up has been only 39%. This is in contrast to the near universal take-up among students in San Francisco’s Kindergarten to College program, which opens an account automatically for all children when they enter kindergarten. This is particularly important in light of recent research suggesting that even opening an account with little money in it may still increase the odds of college enrollment (Elliott, 2013).

Any features that also increase families’ use of their accounts will increase deposits and the educational and economic advantages that accrue to children. To this end, investment options should be simple, and accounting should be streamlined, allowing families to see their account balances grow (Goldberg et al., 2010).

Lifelong Duration

As described above, one of the limitations of IDAs for delivering the kind of educational outcomes and improvements in financial well-being possible with promoting children's asset development is their relatively short-term nature. Because part of the intention of CSAs is to create a system that is flexible and robust enough to carry individuals through their asset-building needs at various points in their lives, CSA programs need to keep individuals connected to financial institutions and facilitate their saving from birth to death (Cramer & Newville, 2009).

Such a lifelong structure would capitalize accounts capable of being saving vehicles for young children whose dominant financial need is higher education, but also for homeownership and other asset purchases postgraduation, as well as for retirement savings and continuing education needs for oneself and one's children. These are features that 529s, education IRAs, and other restricted accounts are not well suited to deliver and speak to the need for alternatives to these structures. However, while 529 plan balances can technically only be used for approved postsecondary educational expenses, the penalty for alternative use is quite low—only 5% of earnings—which makes 529 plans a potentially broader platform for universal progressive savings initiatives (Goldberg et al., 2010).

Establishing these accounts in children's own names would facilitate their use over an extended time horizon and for flexible purposes, beginning with education and extending to homeownership and retirement. In addition, they would reinforce the higher education goal for children for whom this is the primary asset need (Elliott, 2013), since these "dedicated" assets tend to have greater educational effects (Elliott, Destin et al., 2011). However, there might be alternatives to having the account in the child's own name, particularly if financial aid and other policies are not modified to reduce the negative consequences of child asset holdings. For example, in the SEED OK study, the state owns the accounts and children receive bank statements in their name, which may help to formulate the college-saver identity seen as critical to shaping children's academic expectations.

In our estimation, the ideal CSA policy would be coherent and integrated and woven into existing institutional infrastructure. Some countries' approaches approximate this (see, for example, Singapore's rolling account structure), while some of the proposed CSA policies in the United States would establish new structures, reducing the likelihood that the CSAs can build on existing mechanisms and follow young people as they move beyond education to pursue other asset goals.

Progressive Benefits and Matching Contributions

CSAs should focus on creating advantages for lower-income households to accumulate assets to compensate for the barriers to saving low-income families face (Boshara, 2003). There is ample evidence that low-income people and people of color fare comparatively poorly in today's asset policy structure, and that children in these households suffer educational disadvantages as a result (e.g., Conley, 1999; Oliver & Shapiro, 1995; Shapiro, 2004).

While, among those who save, low-income savers save, on average, a higher percentage of their income than higher-income savers do, the amounts are unlikely to be adequate to reduce dependency on college

loans. Saving families earning less than \$35,000 annually have only \$2,000 in median college savings (Sallie Mae, 2009). Until 2007, the median amount of savings low- to moderate-income young adults had was \$390 (Friedline, Elliott, & Chowa, 2012). While even these small amounts, when at least mentally designated for college, may have significant effects on educational outcomes, the reality of rising college costs necessitates subsidies for young adults from disadvantaged backgrounds to have equitable opportunities for success in postsecondary education.

So that CSAs can better address some of these disparities, families' contributions to CSAs should be matched to accelerate asset accumulation, engage parents in planning for children's futures, and leverage parental expectations and aspirations for their children. Matching funds are a primary vehicle through which to leverage these outcomes. This match could take the form of a direct deposit into the account or a refundable tax credit, either of which could be used within a universal account structure or by leveraging the 529 system. For example, as of September 2012, 23 states had implemented matching components within their state-sponsored 529 plans. The size, timing, and targeting of these subsidies vary, and these experiments can help to inform the development of more progressive approaches. In some cases, one-time grants are available for children regardless of family income. Maine, for example, has the nation's most expansive policy, with no income restriction for initial \$500 grants available to start 529 plans before a child's first birthday and dollar-for-dollar matches for lower-income families' contributions (Goldberg et al., 2010). In other states, subsidies are targeted toward lower-income savers (College Savings Plan Network, n.d.) in an effort to parallel the subsidies provided to wealthier savers through the tax code (Boshara, 2003).

Administrators of state 529 plans are also advocating for federal legislation to extend tax credits currently available to those saving for retirement, as an incentive for college savings. Unless these tax credits are refundable, however, they would not provide a financial incentive for saving among households with incomes too low to trigger a tax liability. The Obama administration has proposed refundable tax credits, but, to date, only a few states offer such tax credits for 529 contributions (Clancy et al., 2010).

Additional policy innovations could improve progressivity, including removing maximum savings caps, at least for those with lower incomes, and increasing the adequacy of the progressivity, so that CSAs can be a tool to significantly narrow wealth gaps (Loke & Sherraden, 2009). CSA policies should strive to be a potent force for reducing disparities, while offering the power of savings to all American children.

Asset Accumulation

CSAs are best understood as vehicles to accumulate assets, not just to build financial saving habits. While low-income families, in particular, can benefit from having a savings cushion with which to meet unanticipated expenses (Cramer & Newville, 2009), the most compelling rationale for CSAs is building a financial foundation from which to leverage opportunity. When savings are used to purchase other assets—human and financial—their transformative power is much greater. As Loke and Sherraden (2009) describe, “[CSAs] are about enhancing opportunities and capabilities of people, empowering individuals and families to be in control of their lives, and enabling greater participation in the economy. In so doing, asset-based policies contribute to social and economic development at both the individual and societal levels.”

Political support for CSAs is greatest when the allowable uses are restricted to assets, and current legislative proposals largely place some constraints on these account balances. The ASPIRE Act, for example, restricts accounts to postsecondary education until the age of 25, then allows them to be used as Roth IRA contributions (Goldberg et al., 2010).

Research suggests, however, that accounts students can access for other uses may increase their ability to overcome financial obstacles to school success, while building their competence to make financial decisions (Elliott, 2012b). Tiered account structures (with short-term, intermediate, and long-term college accounts) would allow low-income children access to some of their assets as they progress in school, while others are held in reserve. For example, Singapore's structure, where withdrawals for specific asset investments are allowed at each stage of childhood, gives disadvantaged children ways to access development opportunities at critical points (Loke & Sherraden, 2009). Long-term accounts could be matched at the highest rate, while short- and intermediate-term accounts would be matched less generously, if at all.

Inherent in achieving the asset-building function of CSAs is the ability of account holders to build sufficient balances. We suggest that CSAs should facilitate adequate savings to realize the economic and educational advantages associated with asset development. Emerging research provides additional guidance about how much is needed to secure these gains. For example, the average student graduates with about \$26,000 in student-loan debt today, while research suggests that debt above \$10,000 triggers a number of negative consequences (Dwyer et al., 2012; Elliott & Nam, 2013b). This suggests that account balances of around \$16,000, in today's dollars, would be necessary to mitigate the effects of debt on the average student. In practical terms, this means that—assuming no initial deposit, a 1:1 match on contributions, and 5 percent interest—families would need to save about \$23 per month, starting at a child's birth, to achieve \$16,000 in savings by the time the child reaches 18.

OTHER CSA FEATURES FOR INCREASING IMPACT

One of the lessons learned in the past two decades of research, practice experimentation, and advocacy around children's savings is the importance of setting the policy parameters precisely, to ensure workability, increase the likelihood of positive outcomes, and reduce potential opposition. In this regard, it is clear that a relatively modest initial government deposit at birth—say, \$500—can generate bipartisan support, while larger initial sums increase opposition (Goldberg et al., 2010). Given this, tools other than initial deposits might be needed for low-income children to reach the \$16,000 balance. Policy features promoting universal uptake are likely part of the answer; by easing low-income families' entrance and directing as much of their savings as possible to their saving goals, low opening balance requirements and very low fees can help families' account balances grow. These requirements may necessitate developing saving vehicles outside of the 529 framework or modifying existing 529 offerings (Clancy et al.). Low fees are particularly important given the unlikelihood of extremely high returns on the investment vehicles in which many low-income families would save (Goldberg et al., 2010).

Early intervention is critical here, too. Accounts opened at younger ages allow balances to grow with time and let children reap the attitudinal and behavioral benefits of asset holding. Children in low-income families tend to be older when their families begin to save, largely because there is less money available to be diverted away from present consumption. Early intervention initiatives, ideally beginning

at birth, might also help to disrupt the negative repercussions of asset poverty, including those associated with depressed academic achievement (Elliott, 2013b).

Furthermore, national CSA policy should build on all of the capital, including community relationships, available to disadvantaged children. This suggests that CSAs should allow third-party contributions and matches to ensure that the matches are high enough to be effective incentives for low-income families' saving and to help children attract deposits through leveraging social capital for financial and human capital development (Cramer & Newville, 2009). This would also help build group congruence for children with their communities, an important element of the development of a proeducation identity.

Conditional cash transfers (CCTs), an antipoverty tool most widely used in the international development context that channels assistance directly to individuals if they meet specified criteria, could be an additional method of directing resources to CSAs. In some instances, CCT programs include a saving component, which has the added benefit of building financial inclusion (Zimmerman and Moury, 2009). A similar model could be implemented to promote savings for postsecondary education, just as Singapore has done in its Edusave accounts. These cash incentives provide multiple benefits to the students who receive them. By linking incentives to specific academic outcome or inputs, CCTs reinforce the behavior that aids in postsecondary preparation. The added resources were also shown to reduce the financial anxiety of the low-income households that participated in the Family Rewards program run by New York City, which allowed them to look beyond meeting their immediate need to long-term goals, like college.

One option for maximizing monies currently being spent on education is financing CSAs with Pell Grant funds. The Pell Grant program is one of the largest and most important resources for helping low- and moderate-income students afford college. One way to enhance the program's impact would be to add a saving component using CSAs, rather than issuing awards at the time of college enrollment, as the program currently does. This early commitment approach to Pell Grants could stay within the total fiscal footprint of the current program but, by manipulating timing, could leverage parental and student contributions and shape student educational outcomes during the years leading up to college enrollment, as the grant installments are deposited. Having such funds set aside for individual students early could motivate more of them to prepare for, apply to, and ultimately complete college.

ALIGNMENT AND FINANCIAL EDUCATION INCREASE CSA IMPACT

Factors aside from the design of the CSA itself will have an impact on the ultimate success of the policy. These factors should be considered an essential part of constructing a national CSA policy, particularly one that has the potential to move the United States beyond divergent approaches to welfare—consumption-based supports for poor families and asset-building opportunities for wealthier ones—and to deliver superior educational outcomes for disadvantaged students on a variety of measures.

Alignment with Public Assistance

CSA policy should coordinate with means-tested welfare for those in poverty and with existing financial aid policies to remove savings disincentives. Current asset limit rules in most means-tested public assistance programs create disincentives for low-income families to save for college or, indeed, to

accumulate any assets or build saving habits. Potential recipients may interpret these rules to mean that savings—even for something that they value dearly, such as their children’s educations—are a liability that must be spent down or avoided altogether so families do not risk being disqualified from assistance when they need it. To increase savings among low-income families, disincentives to saving should be removed from the programs with which low-income families interact.

Treatment of different types of savings and assets, including 529s, varies among programs and states. For example, the Supplemental Nutrition Assistance Program (SNAP, formerly food stamps) has eliminated 529s from consideration when determining program eligibility, but many states still include them when calculating eligibility for the Temporary Assistance for Needy Families (TANF) Program. Most low-income families are not using 529s as their vehicle for saving for college, however. Instead, they are saving in traditional, nonrestricted products such as checking, savings, or other similar accounts (Sallie Mae, 2009). All of these accounts are subject to limits on liquid assets in public assistance programs, which can be as low as \$1,000. So, while higher-income households enjoy sizable savings incentives through preferential tax treatment of 529s, low-income households face what amounts to a steep marginal tax on their savings, where additional dollars in savings cost them dearly in public assistance benefits.

Like public assistance programs, the Free Application for Federal Student Aid (FAFSA) considers both income and assets when determining the Expected Family Contribution (EFC), which is the basis for calculating aid. This can create the perception that savings will reduce the amount of financial assistance a student is awarded and create a disincentive to save and to apply for assistance at all, believing that even very small savings will disqualify them from aid (Reyes, 2008). This process also judges more harshly those assets held in students’ own names, despite evidence suggesting that it is precisely these dedicated school assets that have the most significant effects on educational outcomes (e.g., Elliott, 2013a). There have been modest reforms on this front, but more are needed. As of 2010, 17 states exempted college savings held in 529 plans from financial aid determinations, but these same asset protections are not afforded in the federal financial aid system or to students whose savings are held in other vehicles (Clancy et al., 2010). Putting in place a hard figure, below which any savings will not count against a family for financial aid purposes, would allow families to feel comfortable saving long before the FAFSA needs to be completed, thus increasing the likelihood that students see college as being within financial reach.

As part of their effort to simplify the aid determination process, the Obama administration has proposed eliminating any financial question that could not be prepopulated with IRS data, including six of the most onerous questions related to income and assets (Council of Economic Advisers, 2009). They would replace those questions with just one question asking whether the family owns more than \$250,000 in assets, outside of excluded assets such as their home and retirement accounts. This move would be expected to have negligible cost compared to the benefit of simplification. The administration reports that in the 2007–2008 school year, only 4% of financial aid applicants had more than \$150,000 in assets.

In addition to aligning CSA policy with public benefits and financial aid rules, CSA policy should align with tax policy, to encourage individuals to save with tax refunds (Sherraden et al., 2012). In the 2013 tax season, around 27 million households likely filed for the Earned Income Tax Credit (EITC), a credit that boosts the value of work for low-wage earners by offering an additional subsidy for every dollar in earned

income. In 2012, the average value of the EITC was \$2,200 per household, with a potential maximum of \$5,891 (Internal Revenue Service, 2013). Both the number of families that engage in this process and the significance of the resources they receive make the tax time moment a powerful savings opportunity. The Financial Security Credit is a legislative proposal that would allow low-income tax filers to open a savings account, including a 529, and direct a portion of their tax refund into that account directly on their tax return (King, 2012). This would facilitate saving in 529s among the families that are least likely to have an account already and provide a 1:1 match up to \$500 as an incentive to save. This approach would make saving for college simple and valuable. By offering short-term CDs as eligible savings products, families could also save initially for precautionary purposes and advance to a 529 over time. These considerations suggest a need for a broad shift in orientation toward asset accumulation, especially for those disadvantaged in today's economy, with resulting modifications across key policy spheres.

Financial Education

Saving initiatives should include financial education, in conjunction with savings, to build the total complement of human and financial capital needed for success in higher education and postgraduation. This education should take into account the differential access to financial information for low-income children, compared to their wealthier peers, as discussed in Chapter 5. Financial education is widely regarded as a component of economic security, and CSAs provide an excellent vehicle with which to engage children in their financial decisions (Cramer and Newville, 2009). Financial education components of CSA policy might also be important for political reasons, as the public strongly prefers including financial content (Goldberg et al., 2010). Here, research, especially evaluation of financial education efforts, can help to bridge political realities and effective policy design. Policymakers, in particular, often prioritize financial education as part of any effort to provide disadvantaged Americans with access to asset-building opportunities, despite offering these same structures to wealthier households without expecting them to participate in financial literacy programs. However, as discussed earlier, financial education may not be effective unless participants have concurrent opportunities to connect to financial institutions and to use their new skills and knowledge. So a universal CSA policy may provide a platform for offering salient—and, thus, more effective—financial education, while equipping children, in particular, with more of the full complement of capital they will need to succeed even after college graduation.

THE ECONOMIC AND POLITICAL CONTEXTS OF A NATIONAL CSA POLICY

Among the greatest obstacles to CSA expansion today is underinvestment in programs that increase the well-being of children and promote economic mobility. In 1960, 20% of federal domestic spending went to children's programs; in 2007, this figure was 16.2%, and, in 2018, it is expected to be only 13.8% (Steuerle, 2010). Without shifts in how the United States allocates its resources, this lack of investment in children could significantly undermine future economic growth. The federal investment in the so-called mobility budget, including spending that enhances individuals' earning capability, savings, and asset accumulation, fares better than investment in children, but the distribution of these resources is highly unequal (Boshara, 2003). Most spending in this category is dedicated to employer-related work subsidies, homeownership, savings and investment incentives, and education and training supports, with only 28% going to programs that provide significant benefits to low-income individuals (Carasso, Reynolds, & Steuerle, 2008).

State fiscal constraints also affect the higher education opportunities available to American children, especially those whose limited personal and household resources leave them particularly vulnerable to reductions in public supports. More than 75% of American college students are in public institutions, but these colleges and universities—and the educational experience they offer—may not offer the same pathway to the American dream many imagine. Nationwide, states spent 28% less on higher education in 2013 than in 2008, and these cuts can be directly correlated with increases in tuition and other fees as well as reductions in educational quality (Oliff, Palacios, Johnson, & Leachman, 2013). It is within this educational context that the conversation about needed federal investments takes on even greater urgency.

Successfully advancing CSA policy in the United States will require taking advantage of windows of opportunity, framing CSAs as congruent with prevailing value preferences, and crafting CSAs so they are positioned as effective solutions to important policy problems (Goldberg et al., 2010).

CSAs also must prove themselves to be a cost-effective alternative to the status quo. Research can open windows of opportunity by exposing the tremendous efficiencies produced by CSAs. It is possible to fund the ASPIRE Act—providing dedicated accounts for all U.S. children at birth—for only \$3.25 billion in the first year (Cramer, 2006). In comparison, the federal cost of student loans (the subsidy provided within Stafford Loans, GradPLUS, and ParentPLUS programs) is expected to be \$36.5 billion in 2013 (Congressional Budget Office, 2012). If asset-based approaches to financing higher education are seen as ways to reduce dependence on debt-heavy ones, then the “net cost” might appear to be smaller, particularly in light of the long-term financial effects of outstanding student loan (Elliott & Nam, 2013b). The dramatic potential differences in educational outcomes associated with asset-building efforts, as contrasted with heavy use of student loans, outlined elsewhere in this report, suggests that CSAs may be a wise investment of U.S. higher education dollars.

KEY LEGISLATIVE INITIATIVES: PAST, PRESENT, AND FUTURE

CSA proposals stem from the early 1990s, with the initial introduction of the KidSave program and, separately, Michael Sherraden’s book *Assets and the Poor*. While the immediate policy takeaway from Sherraden’s work, as described above, was the impetus for IDAs—described as “optional, earnings-bearing, tax-benefited accounts in the name of each individual, initiated as early as birth, and restricted to designated purposes”—this work also (Sherraden, 1991, p. 220) provided the architecture for what today are called CSAs. Indeed, practitioners’ experiences with IDA savers, many of whom requested the ability to save for their children’s college educations, not just their own, helped to spur planning around children’s savings demonstrations—most notably, the Savings for Education, Entrepreneurship, and Downpayment (SEED) Demonstration—and, ultimately, CSA policy proposals (Goldberg et al., 2010).

From its inception in 2004, SEED sought to “set the stage for universal, progressive American policy for asset building among children, youth and families” (Corporation for Enterprise Development, 2008, p. 2), even though the SEED accounts themselves were time-limited and targeted to children living in low- to moderate-income households (Adams et al., 2010). As SEED was starting, the idea of universal children’s savings accounts was highlighted in a *New York Times* op-ed and in *Atlantic Magazine’s*/*New America Foundation’s* 2003 “Real State of the Union” (Boshara, 2003) as a promising policy and the new centerpiece of the assets movement. Shortly afterward, a bipartisan group of senators introduced the

America Saving for Personal Investment, Retirement, and Education (ASPIRE) Act. The SEED project, which ended in 2008, continues to inform policy development around CSAs, including proving that low-income families can and will save for their children's futures; over three years, 1,220 children saved more than \$1.6 million in accounts opened through SEED (Center for Social Development, 2007).

While no national CSA policy has yet been adopted in the United States, a number of legislative proposals have been developed, such as the ASPIRE Act, Young Savers Accounts, 401Kids Accounts, Baby Bonds, and Portable Lifelong Universal Savings Accounts (Cramer, 2010). Young Savers Accounts would extend the Roth IRA credit to accounts of children without earned income; PLUS Accounts would provide a \$1,000 one-time deposit to establish retirement accounts for all children born after December 31, 2007, and mandate employers to devote 1% of pretax wages to such accounts for workers; and 401Kids converts Coverdell Education Savings Accounts into accounts that could be opened as early as birth and used for education, homes, and retirement (Goldberg et al., 2010). These policies have champions across the political spectrum.

The ASPIRE Act, the highest-profile of the proposals, can serve as a model for what a children's savings account effort that adheres to the principles of universal, progressive, lifelong, and asset building would look like. ASPIRE would create Lifelong Savings Accounts for every newborn, with an initial \$500 deposit, along with opportunities for financial education. The endowment for the deposits would come from the KIDS Account Fund within the U.S. Department of the Treasury (Loke & Sherraden, 2009). Children living in households with incomes below the national median would be eligible for an additional federal contribution of up to \$500 at birth and a savings incentive of \$500 per year in matching funds. Annual 1:1 matches would be capped at the first \$500 contributed and phased out for households with incomes between 100% and 120% of the national median adjusted gross income (Loke & Sherraden, 2009). Private, voluntary after-tax contributions, capped at \$2,000 annually, could be made to each account until the holder reaches age 18. When account holders turn 18, they would be permitted to make tax-free withdrawals for costs associated with postsecondary education or, after age 25, first-time home purchase or retirement security. Contributions after age 18 would be permitted according to Roth IRA rules (Loke & Sherraden, 2009).

Resourcing CSAs, such as the one created by ASPIRE, by linking them with Pell Grants to redeploy that critical financial aid program as an early commitment to children's educational and financial futures, may be one of today's most promising policy recommendations for enabling low-income children and their families to build significant amounts of assets for college. Such action also presents the political advantage of using monies already dedicated to higher education financing.

Conversations about using Pell Grants as an early commitment program started without considering linking them to CSAs (e.g., ACSFA, 2005; 2008; Heller, 2006; Schwartz, 2008). Recently, however, the College Board (2013) recommended supplementing the Pell Grant program by opening savings accounts for children as early as age 11 or 12 who would likely be eligible for Pell once they reached college age and making annual deposits of 5% to 10% of the amount of the Pell Grant award for which they would be eligible. While such proposals have met with concerns that children who are low income in middle school, for example, may not be low income when they reach college age, research suggests that constrained economic mobility in the United States may make this less likely than one would imagine or hope. Examining a group of children who were eligible for free lunch while in seventh grade, Heller

(2006) found that only 18% were no longer eligible for free or reduced lunch as juniors in high school. He also found that 80% of children eligible for the free lunch program were also eligible for the Pell Grant. Heller concludes, “The risk of doing this—that some student may receive a grant who otherwise would not be eligible under current rules—is relatively low, especially in light of the potential value of promising them funds for college much earlier in their academic careers” (p. 1735).

To enhance the impact of this investment, we suggest that accounts should be opened at birth, even though the Pell Grant money would not be made available until ages 11 or 12. By these ages, one could determine more accurately whether children receiving the Pell Grant funds would remain poor through the time of college enrollment but be early enough to affect formation of their identity as a college-saver (i.e., someone who is college-bound and who sees saving as a strategy for helping paying for college). Opening the account at birth may begin to set children’s sights on higher education so these students are more likely to be on a college track when Pell Grant funds are being allocated. This is a universal, lifelong, progressive policy that has a real chance to increase college attainment and build assets among all of our citizens, while leveraging resources already earmarked for college financing.

Recently, Senators Chris Coons (D-DE) and Marco Rubio (R-FL) reintroduced a bipartisan proposal to create college savings accounts for low-income students and monitor higher education readiness through a personal online account. The American Dream Accounts Act (S. 918 in the 113th Congress) would use existing Department of Education dollars to encourage development of online platforms that partner students with college, schools, nonprofits, and businesses, to provide children with savings accounts and other college readiness tools, explicitly linking asset foundations and educational outcomes. These various developments should not be considered competing approaches, but, instead, distinct and potentially complementary options for answering program structure and delivery questions in children’s savings account policy, in light of mounting evidence demonstrating the value of using asset accumulation to improve higher educational attainment and address pervasive educational and economic disparity among children in the United States.

RESEARCH QUESTIONS TO GUIDE FURTHER POLICY REFINEMENT

While research supports asset development as a way to open the door to higher education for more low-income children, additional research is needed to inform the particulars of CSA policies. For example, the literature on CSA policy is currently open to alternatives regarding the best place and structure for account management. There are arguments for building on existing asset-accumulation mechanisms, such as 529 plans, or for instituting universal children’s savings efforts that stand alone as investments in child well-being (Cramer, 2010). Related are questions about the best roles for private financial institutions in CSA administration (Cramer & Newville, 2009).

Other outstanding research questions related to CSA policy include:

1. What, precisely, are the threshold dollar amounts of savings needed to realize positive educational outcomes, and how sensitive are these thresholds to increases in average college costs and expected postgraduation incomes?
2. With limited resources, should incentives (such as matches) be targeted to achieving savings goals or educational milestones?

3. What are the best ways to combine these to support students' financial and academic progress?
4. To reap the maximum psychological and behavioral effects of saving, do students need to manage their own accounts directly, or is it enough to have the savings held in their names and restricted for college?
5. Do the savings effects that we see in young adulthood persist throughout students' lives? Are they transmitted effectively across generations?
6. What are the best savings vehicles through which to deliver CSAs—regular bank deposit accounts, CDs or other restricted savings vehicles, or 529 tax-advantaged college accounts?
7. To what extent can the tax system deliver financial subsidies and incentives to low-income families, through refundable credits, in particular?
8. What might be roles for matched contributions from private entities, like employers and nonprofit organizations, and how would the attitude and behavioral effects seen as a result of contributions from these sources differ from those realized when children and parents are saving themselves?
9. How can asset research inform existing college financial aid practices, including need- and merit-based scholarships, which might be structured more as promise programs, to shape academic performance leading to college preparation?
10. How might Pell Grants and other need-based financial aid learn from the research on asset initiatives to incorporate elements of early commitment programs into their structure?

CSAS SOLVE HIGHER EDUCATION POLICY CHALLENGES

Given the current fiscal climate, finding ways to get the most out of money spent on college loans, scholarships, and grants is one way to reframe the 21st-century discussion about how to finance college, and asset building may be a way to maximize the benefits of going to college. For example, as college debt skyrockets and takes longer to pay it off, adults may receive less of a financial return on their educational investment. Having assets may help reduce the debt burden on students and their families, and thus increase the value of a college education. In addition, if having savings helps children engage in school at an early age, it might allow them to take better advantage of their primary and secondary education and position them for greater college achievement. Given the relationship between engagement and academic attainment, the prospect of affecting children's orientation toward their education for relatively small initial investments is worthy of greater attention. Also, if having savings as a child is associated with higher rates of saving throughout adulthood, children may be more likely as adults to maximize the financial benefit of having a college degree.

This is a 21st-century strategy not only for making college more accessible but also for ending the cycle of poverty. By rewarding hard work in school and asset accumulation, this strategy need not cost more than the current, debt-centric system if existing funds are reprioritized. Instead, it could be largely financed using money already committed to education, but in a smarter way.

KEY POINTS

CSAs hold the promise of extending asset-building opportunities and their associated educational outcomes to all children in the United States. CSAs should be part of a 21st-century financial aid system, as a complement to student loans and an alternative to the entirely debt-centric model that is underperforming on key indicators. Because higher education has significant societal benefits beyond those accruing to individual students, CSAs may make considerable contributions, indirectly, to U.S. objectives of economic prosperity, global competitiveness, and greater equality.

- Among researchers and policy advocates, there is near consensus on key features of CSAs: they need to be universal, progressive, lifelong, and asset building.
- U.S. policy currently invests heavily in asset development, but the overwhelming benefit of these initiatives accrues to higher earners. These savings incentives, delivered primarily through the tax code, do work, but to ensure that education can serve as an equalizing force in U.S. society, alternative supports for lower-income children and families are needed.
- Policymakers should study the lessons of asset initiatives pursued by states and localities, as well as in other countries.
- Research offers further implications for CSA design: matching contributions must be sufficient to help low-income families avoid high-dollar debt; accounts should have few barriers to deposits; assets should be held in children's names whenever possible; more alignment with public assistance programs is needed; savings initiatives should be paralleled by college-preparatory efforts; and early intervention is preferable, given asset effects over a lifetime.
- Additional research is needed to inform policymakers' choices about account structure, incentives, match levels, and administration, among other questions.
- As U.S. policymakers explore initiatives to implement asset-based principles in current policy structures, momentum for shifting Pell Grants to early commitment investments may represent a promising opportunity to leverage existing financial aid dollars for more positive impact.

Notes

¹ We do not know, however, whether these types of student expectations have an effect on enrollment outcomes.

² Sallie Mae (2011) defines low-income as less than \$35,000 and high income as \$100,000 or more.

³ One example can be found in the Homestead Act (Williams Shanks, 2005), which allowed citizens willing to move west to qualify for land. All they had to do was put forth the effort and have the ability necessary for cultivating the land.

⁴ Theories like locus of control (see Rotter, 1966) imply that people focusing on the institutional aspects of efficacy is unreasonable.

⁵ We say that the expectation that one is college-bound is normative because research suggests that most children expect to attend college regardless of socioeconomic status or race/ethnicity (Kao & Tienda, 1998; Mello, 2009).

⁶ As a result, what lower-income and minority parents can model to their children in regard to things like financial education is limited by the resources to which they have access.

⁷ Net price calculators offer the potential to give students a slightly earlier estimate of their aid packages, but these have yet to be universally implemented (Cheng, Asher, Abernathy, Cochrane, & Thompson, 2012) and still target high school juniors and seniors. A recent poll by the College Board and Art & Science Group (2013) found that only 16% of students with household incomes below \$60,000 used the calculators. The federal government's Free Application for Federal Student Aid (FAFSA) "FAFSA4caster" (<http://www.mymoney.gov/content/fafsa4caster.html>) also gives students an earlier estimate of their aid packages (as early as middle school), but knowledge of this website appears to be very low.

⁸ Estimates suggest that the number of Pell Grant-eligible students who fail to file for financial aid range from at least 500,000 students (Novak & McKinney, 2011) to as many as 1.5 million students annually (King, 2006). At community colleges, at least one-fifth of all students in the lowest income categories (below \$20,000 per year) do not file the FAFSA (ACSFA, 2008), and many file late because they think the FAFSA is complicated and takes too much time to fill out (LaManque, 2009).

⁹ The figures for 2011–12 are preliminary and subject to revisions. Additionally, the \$105 billion in loans is the total dollars of loans disbursed; the federal government eventually recoups most of the funds through repayment.

¹⁰ This is the number of questions as of the 2012–2013 academic year. Over 22 million students submitted the Free Application for Federal Student Aid (FAFSA) for the 2011–2012 academic year, a 5% increase over the prior year. This includes 52% of all graduating high school seniors in the United States (Snyder & Dillow, 2011).

¹¹ More information on these early commitment programs can be found in Blanco (2005) and Harnisch (2009).

¹² See Vaade (2009) for a list of these programs.

¹³ In Chapter 2, the process of internalization is discussed within the institutional facilitation framework.

¹⁴ See <http://videocafe.crooksandliars.com/heather/mitt-romney-tells-ohio-students-borrow-mon>.

¹⁵ Asset poverty is measured in the form of both liquid assets and net worth. In the case of liquid asset poverty, it is defined as a family that does not possess a level of assets that would allow its members to live at 75% of their annual income for one month. Net worth asset poverty is defined as a family that did not have sufficient wealth to live three months at the poverty line using the U.S. Census poverty threshold measure. An assets shock is defined as a drop in assets of 25% or 50% from one five-year period until the next for both liquid assets and net worth.

¹⁶ For a more detailed conversation on this topic see Chapter 2.

¹⁷ Hahn and Price (2008) defined college-qualified as having, "at least a 2.5 grade point average (GPA), taken a college preparatory curriculum, and completed Algebra I or II, Pre-calculus, Calculus and/or Trigonometry" (p. 4).

¹⁸ College-qualified referred to high school graduates who had taken at least trigonometry.

¹⁹ The 3 of 18 studies with mixed results are identified when an asset (e.g., net worth, liquid asset, or homeownership) is significant for one sample of children and not for another. For instance, a study is identified as having mixed results when assets are significant for White children and not for Black children or vice versa.

²⁰ Mixed results are identified when an asset (e.g., net worth, liquid asset, or homeownership) is significant for one sample of children and not for another. For instance, a study is identified as having mixed results when assets are significant for White children and not for Black children or vice versa.

²¹ A child has a college-saver identity when he or she expects to graduate from college and has identified saving as a strategy for helping to pay for college expenses (Elliott & Nam, forthcoming).

²² Behavioral economics and the theory of asset effects are both notably absent from this list, as few studies test behavioral economic and asset effects explanations of children's savings. This is not to say that behavioral economics has not been applied to children generally speaking. Rather, behavioral economics has been applied infrequently to the context of their saving behaviors. For two exceptions, see Lahav, Benzion, & Shavit, 2010, and Marshall, Chuan, & WoonBong, 2002. We will know more about the role of choice architecture (heuristics, time horizons/discount rates, rules of thumb, loss aversion) as behavioral economics is increasingly applied to children's saving behaviors.

²³ Additional studies such as those by Berti and Bombi (1981a, 1981b), Jahoda and France (1979), and Ng (1983, 1985) examine the role of development for children's acquisition of financial knowledge like stocks and insurance. Findings from these studies provide context for understanding how children's development relates to their ability to integrate knowledge about money and finances; however, they do not emphasize children's saving. The six identified studies, which build on the broader developmental research in economic psychology, focus specifically on children's saving.

²⁴ It should be noted that children at age 12 were not always more successful at saving tokens than their younger counterparts. Older children's success at the game could still be undermined even though they used more sophisticated saving strategies. For instance, knowledgeable and well-intentioned adults assumed to use more sophisticated saving strategies than children do still miscalculate their grocery bills.

²⁵ The 12-year-old boy from New Jersey had his \$300 life savings returned to him by the recycling company. The family from Tel Aviv was not as lucky—reports to date suggest that the \$1 million life savings were lost.

²⁶ Approved expenses typically include education, entrepreneurship, home ownership, and retirement. Other expenses like the purchase of a car or taking a vacation are typically considered unapproved and subject to fees or forfeit of any match incentives.

²⁷ It is important to point out and make explicit that, while there is a greater need to recognize the role of children in the development of their own college-saver identities, and while in some cases it might be necessary for CSAs to replace parents when they are unable or unwilling to fulfill their role as economic socializers, ideally CSAs would augment the role of parents.

²⁸ Self-efficacy is defined as people's beliefs about the effectiveness of using their individual resources to produce designated levels of performance that exercise influence over events that affect their lives (see Bandura, 1997). Institutional efficacy is defined as children's beliefs about the effectiveness of using institutional resources to produce designated levels of performance that exercise influence over events that affect their lives.

²⁹ For more information about the 1:1 Fund, see <http://www.1to1fund.org/>.

³⁰ Changed in 2008 to cover all children.

References

- Acs, G., Loprest, P., & Nichols, A. (2009). *Risk and recovery: Understanding the changing risks to low-income working families*. Washington, DC: Urban Institute.
- ACSFA. (2001). *Access denied: Restoring the nation's commitment to equal educational opportunity*. Washington, DC: Advisory Committee on Student Financial Assistance.
- ACSFA. (2002). *Empty promises: The myth of college access in America* (Vol. 2006). Washington, DC: Advisory Committee on Student Financial Assistance.
- ACSFA. (2005). *The student aid gauntlet: Making access to college simple and certain*. Washington, DC: Advisory Committee on Student Financial Assistance.
- ACSFA. (2006). *Mortgaging our future: How financial barriers to college undercut America's global competitiveness* (pp. 1–63). Washington, DC: Advisory Committee on Student Financial Assistance.
- ACSFA. (2008). *Apply to succeed: Ensuring community college students benefit from need-based financial aid*. Washington, DC: Advisory Committee on Student Financial Assistance.
- ACSFA. (2010). The rising price of inequality: How inadequate grant aid limits college access and persistence. Washington, DC: Advisory Committee on Student Financial Assistance. Retrieved from http://chronicle.com/items/biz/pdf/acsfa_rpi.pdf
- Adams, D., Nam, Y., Williams Shanks, T., Hicks, S., & Robinson, C. (2010). Research on assets for children and youth: Reflections on the past and prospects for the future. *Children and Youth Services Review*, 32(11), 1617–1621.
- Adams, J. T. (1931). *The epic of America*. New York: Blue Ribbon Books.
- Adler, N. E., Boyce, T., Chesney, M., Folkman, S., & Syme, L. (1993). Socioeconomic inequalities in health: No easy solution. *Journal of the American Medical Association*, 269, 3140–3145.
- Almond, D. (2006). Is the 1918 Influenza pandemic over? Long-term effects of in utero influenza exposure in the post-1940 U.S. population. *Journal of Political Economy*, 114(4), 672–712.
- Almond, D., Edlund, L., & Palme, M. (2009). Chernobyl's subclinical legacy: Prenatal exposure to radioactive fallout and school outcomes in Sweden. *Quarterly Journal of Economics*, 124(4), 1729–1772.
- Almond, D., & Mazumder, B. (2005). The 1918 influenza pandemic and subsequent health outcomes: An analysis of SIPP data. *The American Economic Review*, 95, 2, 258–262.
- Andrews, R. J., DesJardins, S., & Ranchhod, V. (2010). The effects of the Kalamazoo Promise on college choice. *Economics of Education Review*, 29, 722–737.
- Antonovsky, A. (1979). *Health, stress, and coping*. San Francisco: Jossey-Bass.
- Ashby, J. S., Schoon, I., & Webley, P. (2011). Save now, save later? Linkages between saving behaviour in adolescence and adulthood. *European Psychologist*, 16(3), 227–237.
- Attewell, P., & Lavin, D. E. (2007). *Passing the torch: Does higher education for the disadvantaged pay off across the generations?* New York: Russell Sage Foundation.

- Aud, S., Hussar, W., Johnson, F., Kena, G., Roth, E., Manning, E., Wang, X., & Zhang, J. (2012). *The condition of education 2012* (NCES 2012-045). Washington, DC: U.S. Department of Education, National Center for Education Statistics. Retrieved from <http://nces.ed.gov/pubsearch>
- Avery, R. B., Bostic, R. W., Calem, P. S., & Canner, G. B. (1997). Changes in the distribution of banking offices. *Federal Reserve Bulletin*, 83, 707-725.
- Axinn, W., Duncan, G. J., & Thornton, A. (1997). The effects of parents' income, wealth, and attitudes on children's completed schooling and self-esteem. In G. J. Duncan & J. Brooks-Gunn (Eds.), *Consequences of growing up poor* (p. 518-540). New York: Russell Sage Foundation.
- Bailey, M. J., & Dynarski, S. (2011). Inequality in postsecondary education. In G. Duncan & R. Murnane (Eds.), *Whither opportunity?* (p. 117-132). New York: Russell Sage Foundation.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavior change. *Psychological Review*, 84(2), 191-215.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*, Prentice-Hall Series in Social Learning Theory. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1994). Self-efficacy. *Encyclopedia of Human Behavior*, 4, 71-81.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman.
- Bargh, J., & Chartrand, T. (1999). The unbearable automaticity of being. *American Psychologist*, 54(7), 462-479.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Barron, J. (2012, May 29). That's not recyclable, mom. That's my savings! *New York Times*. Retrieved from http://www.nytimes.com/2012/05/30/nyregion/hunt-for-boys-savings-hidden-in-a-computer-bound-for-recycling.html?_r=1
- Barr, M. (2004). *Banking the poor: Policies to bring low-income Americans into the financial mainstream*. Washington, DC: Brookings Institution.
- Barr, M., & Blank, R. (2009). *Insufficient funds: Savings, assets, credit and banking among low-income households*. New York: Russell Sage Foundation.
- Bartik, T. J., & Lachowska, M. (2012). *The short-term effects of the Kalamazoo Promise scholarship on student outcomes* (Working Paper 12-186). Kalamazoo, MI: Upjohn Institute.
- Baum, S. (1996). New directions in student loans: Intergenerational implications. *Journal of Student Financial Aid*, 26(2), 7-18.
- Baum, S., & Payea, K. (2012). *Trends in student aid*. New York: College Board Advocacy and Policy Center.
- Behrman, J. R., & Rosenzweig, M. R. (2004). Returns to birthweight. *The Review of Economics and Statistics*, 86(2), 586-601.
- Belk, R. W. (1988). Possessions and the extended self. *The Journal of Consumer Research*, 15(2), 139-168.

- Belk, R. W., Rice, C., & Harvey, R. (1985). Adolescents' reported saving, giving, and spending as a function of sources of income. In E. C. Hirschman & M. B. Holbrook (Eds.), *Advances in Consumer Research* (Vol. 12, pp. 42–46). Provo, UT: Association for Consumer Research.
- Bell, A. D., Rowan-Kenyon, H. T., & Perna, L. W. (2009). College knowledge of 9th and 11th grade students: Variation by school and state context. *The Journal of Higher Education*, 80, 663–685.
- Belman, D., & Heywood, J. (1991). Sheepskin effects in the return to education. *Review of Economics and Statistics*, 73, 720–724.
- Bernstein, J. (2010). Perspective from the left: Children's saving accounts, mobility, and inequality. *Children and Youth Services Review*, 32(11), 1597–1600.
- Berti, A. E., & Bombi, A. S. (1981a). *The child's construction of economics* (G. Duveen, Trans.). Cambridge, MA: Cambridge University Press.
- Berti, A. E., & Bombi, A. S. (1981b). The development of the concept of money and its value: A longitudinal study. *Child Development*, 52(4), 1179–1182.
- Bettinger, E. P., Long, B. T., Oreopoulos, P., & Sanbonmatsu, L. (2012). The role of application assistance and information in college decisions: Results from the H&R Block FAFSA experiment. *The Quarterly Journal of Economics*, 127, 1205–1242.
- Beutler, I., & Dickson, L. (2008). Consumer economic socialization. In Xiao, J. J. (ed.), *Handbook of consumer finance research* (pp. 83–102). New York: Springer.
- Beverly, S., Kim, Y., Sherraden, M., Nam, Y., & Clancy, M. (2012). *Socioeconomic status and early savings outcomes: Evidence from a statewide Child Development Account experiment* (CSD Working Paper No. 12-30). St. Louis, MO: Washington University, Center for Social Development.
- Beverly, S., Sherraden, M., Cramer, R., Zhan, M., Nam, Y., & Williams Shanks, T. (2008). Determinants of asset building. In S-M. McKernan & M. Sherraden (Eds.), *Asset building and low-income families* (pp. 89–152). Washington, DC: Urban Institute.
- Bills, D. B. (2003). Credentials, signals, and screens: Explaining the relationship between schooling and job assignment. *Review of Educational Research*, 73(4), 441–469.
- Black, S. E., Devereux, P. J., & Salvanes, K. G. (2007). From the cradle to the labor market? The effect of birth weight on adult outcomes. *Quarterly Journal of Economics*, 122(1), 409–439.
- Blanco, C. D. (2005). *Early commitment financial aid programs: Promises, practices, and policies*. Boulder, CO: Western Interstate Commission for Higher Education.
- Blau, P. M., & Duncan, O. D. (1967). *The American occupational structure*. New York: John Wiley and Sons.
- Bollen, K. A., & Stine, R. A. (1992). Bootstrapping goodness-of-fit measures in structural equation models. *Sociological Methods and Research*, 21, 205–229.
- Boshara, R. (2003). Federal policy and asset building. *Social Development Issues*, 25(1 and 2), 130–141.
- Bourdieu, P. (1977). Cultural reproduction and social reproduction. In J. Karabel & A. H. Halsey (Eds.), *Power and ideology in education* (pp. 487–511). New York: Oxford.

- Bourdieu, P. (1984). *Distinction: A social critique of the judgment of taste*. London, UK: Routledge.
- Bowen, C. F. (2002). Financial knowledge of teens and their parents. *Financial Counseling and Planning*, 13(2), 93–102.
- Bowen, W. G., Chingos, M. M., & McPherson, M. S. (2009). *Crossing the finish line: Completing college at America's public universities*. Princeton, NJ: Princeton University Press.
- Bowman, S. (2011). Multigenerational interactions in black middle class wealth and asset decision making. *Journal of Family and Economic Issues*, 32(1), 15–26.
- Bricker, J., Kennickell, A., Moore, K., & Sabelhaus, J. (2012). Changes in U.S. family finances from 2007 to 2010: Evidence from the Survey of Consumer Finances. *Federal Reserve Bulletin*, 98(2), 1–80.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.
- Brooks-Gunn, J., & Duncan, G. J. (1997). The effects of poverty on children. *Children and Poverty*, 7(2), 55–71.
- Cabrera, A. F., Burkum, K. R., & La Nasa, S. M. (2005). Pathways to a four-year degree: Determinants of transfer and degree completion. In A. Seidman (Ed.), *College student retention: Formula for student success*. Westport, CT: Praeger Publishers.
- Cabrera, A. F., & La Nasa, S. M. (2000). Understanding the college-choice process. *New Directions for Institutional Research*, 107, 5–22.
- Cabrera, A. F., & La Nasa, S. M. (2001). On the path to college: Three critical tasks facing America's disadvantaged. *Research in Higher Education*, 42, 119–149.
- Calarco, J. M. (2011). "I need help!" Social class and children's help-seeking in elementary school. *American Sociological Review*, 76(6), 862–882.
- Calvert, S. L. (2008). Children as consumers: Advertising and marketing. *The Future of Children*, 18(1), 205–234.
- Cameron, S. V., & Heckman, J. J. (1998). Life cycle schooling and dynamic selection bias: Models and evidence for five cohorts of American males. *The Journal of Political Economy*, 106(2), 262–333.
- Cameron, S. V., & Heckman, J. J. (2001). The dynamics of educational attainment for Black, Hispanic, and White males. *Journal of Political Economy*, 109(31), 455–499.
- Cameron, S. V., & Taber, C. R. (2004). Estimation of educational borrowing constraints using returns to schooling. *Journal of Political Economy*, 112(1), 132–182.
- Campaigne, D. A., & Hossler, D. (1998). How do loans affect the educational decisions of students? Access, aspirations, college choice, and persistence. In R. Fossey & M. Bateman (Eds.), *Condemning students to debt: College loans and public policy*. New York: Teachers College Press.
- Campbell, L. A. (2006). *The effect of parents' wealth on child achievement in mathematics and reading*. Columbus, OH: Ohio State University.
- Carasso, A., Reynolds, G., & Steuerle, E. (2008). *How much does the federal government spend to promote economic mobility and for whom?* Washington, DC: Pew Charitable Trusts, Economic Mobility Project.
- Card, D., & A. Krueger. (1992). Does school quality matter? Returns to education and the characteristics of public schools in the United States. *Journal of Political Economy*, 100, 1–40.

- Card, D., & Krueger, A. (1996). School resources and student outcomes: An overview of the literature and new evidence from North and South Carolina. *Journal of Economic Perspectives*, 10, 31–50.
- Carneiro, P., & Heckman, J. J. (2002). The evidence on credit constraints in post-secondary schooling. *The Economic Journal*, 112(October), 705–734.
- Carnevale, A. P., & Rose, S. J. (2011). *The undereducated American* (pp. 1–45). Washington, DC: Georgetown University, Center on Education and the Workforce.
- Carnevale, A. P., Rose, S. J., & Cheah, B. (2011). *The college payoff: Education, occupations, lifetime earnings*. Washington, DC: Georgetown University, Center on Education and the Workforce.
- Carnevale, A. P., Smith, N., Stone, J. R., III, Kotamraju, P., Steuernagel, B., & Green, K. A. (2011). *Career clusters: Forecasting demand for high school through college jobs*. Washington, DC: Georgetown University, Center on Education and the Workforce.
- Carnevale, A. P., & Strohl, J. (2010). How increasing college access is increasing inequality, and what to do about it. In R. Kahlenberg (Ed.), *Rewarding strivers: Helping low-income students succeed in college* (pp. 1–231). New York: Century Foundation Books.
- Case, A., & Paxson, C. (2010a, January). *The long reach of childhood health and circumstance: Evidence from the Whitehall II study* (Working Paper 15640), Cambridge, MA: National Bureau of Economic Research. Retrieved from www.nber.org/papers/w15640
- Case, A., & Paxson, C. (2010b, January). *Causes and consequences of early life health* (Working Paper 15637). Cambridge, MA: National Bureau of Economic Research. Retrieved from www.nber.org/papers/w15637
- Center for Social Development. (2007). *SEED account monitoring research: Participants and savings outcomes*. St. Louis, MO: Washington University, Center for Social Development.
- Chan, P. (2011). *Beyond barriers: Designing attractive savings accounts for lower-income consumers*. Washington, DC: New America Foundation.
- Chandler, T. M., & Heinzerling, B. M. (1998). Learning the consumer role: Children as consumers. *Reference Services Review*, 26(1), 61–95.
- Charles, C., Roscigno, V. J., & Torres, K. (2007). Racial inequality and college attendance: The mediating role of parental investments. *Social Science Research*, 36, 329–352.
- Cheatham, G., & Elliott, W. (2013). The effects of college savings on postsecondary school enrollment rates of students with disabilities. *Economics of Education Review*, 33(1), 95–111.
- Cheng, D., Asher, L., Abernathy, P., Cochrane, D., & Thompson, J. (2012, October). *Adding it All Up 2012: Are college net price calculators easy to find, use, and compare?* Oakland, CA: Institute for College Access and Success.
- Cheung, M., & Delavega, E. (2011). Child savings accounts: Learning from poverty reduction policies in the world. *International Social Work*, 55(1), 71–94.
- Chiteji, N., & Hamilton, D. (2002). Family connections and the black-white wealth gap among middle-class families. *The Review of Black Political Economy*, 30(1), 9–28.
- Clancy, M., Lasser, T., & Taake, K. (2010). *Saving for college: A policy primer*. St. Louis, MO: Washington University, Center for Social Development.

- Cofer, J., & Somers, P. (2001). What influences persistence at two-year colleges? *Community College Review*, 29(3), 56–76.
- Cohn, M. (2012). *Student loan debts could trigger next financial crisis*. Retrieved from http://www.accountingtoday.com/debits_credits/Student-Loan-Debts-Trigger-Financial-Crisis-61700-1.html
- College Board. (2012). *Trends in student aid 2012: Trends in higher education series*. New York: College Board.
- College Board & Art and Science Group (2013). *A majority of students look at a college's sticker price without taking financial aid into consideration*. New York: College Board. Retrieved from <http://www.artsci.com/studentpoll/v10n1/index.aspx>
- College Savings Plan Network. (n.d.). *529 plans help make higher education more accessible and affordable for American families*. Retrieved from <http://www.collegesavings.org/includes/pdfs/CSPN%20One%20Pager%202012.pdf>
- Collier, P., & Morgan, D. (2008). Is that paper really due today? Differences in first-generation and traditional college students' understandings of faculty expectations. *Higher Education*, 55(4), 425–446.
- Collins, R. (1971). Functional and conflict theories of educational stratification. *American Sociological Review*, 36, 1002–1019.
- Condrón, D. J., & Roscigno, V. J. (2003). Disparities within: Unequal spending and achievement in an urban school district. *Sociology of Education*, 76(1), 18–36.
- Congressional Budget Office. (2012). *CBO March 2012 baseline projections for the student loan and Pell grant programs*. Washington, DC: Congressional Budget Office. Retrieved from http://cbo.gov/sites/default/files/cbofiles/attachments/43054_StudentLoanPellGrantPrograms.pdf
- Conley, D. (1999). *Being black, living in the red*. Berkeley, CA: University of California Press.
- Conley, D. (2001). Capital for college: Parental assets and postsecondary schooling. *Sociology of Education*, 74(1), 59–72.
- Conley, D., & Rauscher, E. (2013). Genetic interactions with prenatal social environment: Effects on academic and behavioral outcomes. *Journal of Health and Social Behavior*, 54(1), 109–27.
- Conley, D., Strully, K. W., & Bennett, N. G. (2003). *The starting gate: Birth weight and life chances*. Berkeley, CA: University of California Press.
- Cook, D. T. (2004). Beyond either/or. *Journal of Consumer Culture*, 4(2), 147–153.
- Cook, D. T. (2008). The missing child in consumption theory. *Journal of Consumer Culture*, 8(2), 219–243.
- Cookson, P. W., & Persell, C. H. (1985). *Preparing for power: America's elite boarding schools*. New York: Basic Books.
- Corporation for Enterprise Development. (2012). Assets and opportunity scorecard. Retrieved from <http://scorecard.assetsandopportunity.org/2012/measure/lifting-asset-limits-in-public-benefit-programs>
- Corsaro, W. A. (2005). *The sociology of childhood* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Coster, W. J., & Jaffe, L. E. (1990). Current concepts of children's perceptions of control. *American Journal of Occupational Therapy*, 45, 19–25.

- Council of Economic Advisers. (2009). Simplifying student aid: The case for an easier, faster, and more accurate FAFSA. Retrieved from <http://www.whitehouse.gov/administration/eop/cea/FAFSAReport/>
- Cramer, R. (2006). *Net worth at birth*. Washington, DC: New America Foundation.
- Cramer, R. (2010). The big lift: Federal policy efforts to create child development accounts. *Children and Youth Services Review*, 32(11), 1538–1543.
- Cramer, R., & Newville, D. (2009). *Children's savings accounts: The case for creating a lifelong savings platform at birth as a foundation for a "save-and-invest" economy*. Washington, DC: New America Foundation.
- Cunha, F., & Heckman, J. J. (2008). Formulating, identifying and estimating the technology of cognitive and noncognitive skill formation. *The Journal of Human Resources*, 43(4), 738–782.
- Cunha, F., & Heckman, J. J. (2010). *Investing in our young people* (Working Paper No. 16201). Cambridge, MA: National Bureau of Economic Research. Retrieved from <http://www.nber.org/papers/w16201.pdf>
- Cunningham, A. F., & Kienzl, G. S. (2011). *Delinquency: The untold story of student loan borrowing*. Washington, DC: Institute for Higher Education Policy.
- Cunningham, A. F., & Santiago, D. A. (2008). *Student aversion to borrowing: Who borrows and who doesn't*. Washington, DC: Institute for Higher Education Policy and Excelencia in Education.
- Curley, J., Ssewamala, F., & Han, C. K. (2010). Assets and educational outcomes: Child development accounts (CDAs) for orphaned children in Uganda. *Children and Youth Services Review*, 32, 1585–1590.
- Danes, S. (1994). Parental perceptions of children's financial socialization. *Financial Counseling and Planning*, 5, 127–146.
- Davies, S., & Guppy, N. (1997). Field of study, college selectivity, and student inequalities in higher education. *Social Forces*, 75(4), 1417–1438.
- Davis, K., & Moore, W. E. (1945). Some principles of stratification. *American Sociological Review*, 10, 242–49.
- Deming, D., & Dynarski, S. (2010). Into college, out of poverty? Policies to increase the postsecondary attainment of the poor. In P. Levine & D. Zimmerman (Eds.), *Targeting investments in children: Fighting poverty when resources are limited* (pp. 283–302). Chicago, IL: University of Chicago Press.
- Destin, M. (2009). *Assets, inequality, and the transition to adulthood: An analysis of the panel study of income dynamics* (Issue Brief). New York: Aspen Institute, Initiative on Financial Security.
- Destin, M. (2013). Integrating resource-based and person-based approaches to understanding wealth effects on school achievement. *Economics of Education Review*, 33(1), 171–178.
- Destin, M., & Oyserman, D. (2009). From assets to school outcomes: How finances shape children's perceived possibilities and intentions. *Psychological Science*, 20, 414–418.
- Destin, M., & Oyserman, D. (2010). Incentivizing education: Seeing schoolwork as an investment, not a chore. *Journal of Experimental Social Psychology*, 46(5), 846–849.
- DiMaggio, P. (1982). Cultural capital and school success: The impact of status culture participation on the grades of U.S. high school students. *American Sociological Review*, 47, 189–201.

- Duflo, E., Gale, W., Liebman, J., Orszag, P., & Saez, E. (2006). *Saving incentives for low- and middle-income families: Evidence from a field experiment with H&R Block* (Working Paper No. 11680). Cambridge, MA: National Bureau of Economic Research.
- Duncan, G. J., & Liker, J. (1983). Disentangling the efficacy-earnings relationship among white men. In G. J. Duncan & J. N. Morgan (Eds.), *Five thousand American families—patterns of economic progress* (Vol. 10) (pp. 218–248). Ann Arbor, MI: Institute for Social Research, University of Michigan.
- Duncan, G. Y., Brooks-Gunn, J., & Smith, J. (1998). How much does childhood poverty affect the life chances of children? *American Sociological Review*, 63(3), 406–423.
- Dweck, C. C. (1989). Motivation. In A. Lesgold & R. Glaser (Eds.), *Foundations for a psychology of education* (pp. 87–136). Hillsdale, NJ: Erlbaum.
- Dwyer, R. E., McCloud, L., & Hodson, R. (2012). Debt and graduation from American universities. *Social Forces*, 90(4), 1133–1155.
- Dynarski, S., & Scott-Clayton, J. (2008). Complexity and targeting in federal student aid: A quantitative analysis. In J. M. Poterba (Ed.), *Tax policy and the economy* (Vol. 22) (pp. 109–150). Chicago, IL: University of Chicago Press.
- Dynarski, S., & Scott-Clayton, J. (2013). Financial aid policy: Lessons from research (Working Paper No. 18710). Cambridge, MA: National Bureau of Economic Research.
- Dynarski, S., Scott-Clayton, J., & Wiederspan, M. (2013). Simplifying tax incentives and aid for college: Progress and prospects (Working Paper No. 18707). Cambridge, MA: National Bureau of Economic Research.
- Dynarski, S., & Wiederspan, M. (2012). Student aid simplification: Looking back and looking ahead (Working Paper No. 17834). Cambridge, MA: National Bureau of Economic Research.
- Eastman, C., & Marzillier, J. S. (1984). Theoretical and methodological difficulties in Bandura's self-efficacy theory. *Cognitive Therapy and Research*, 8(3), 213–230.
- Easton-Brooks, D., & Davis, A. (2007). Wealth, traditional socio-economic indicators, and the achievement debt. *Journal of Negro Education*, 76(4), 530–541.
- Eccles, J., Wigfield, A., Harold, R. S., & Blumenfeld, P. (1993). Age and gender differences in children's self- and task perceptions during elementary school. *Child Development*, 64(3), 830–847.
- Eckles, J. E., & Stradley, E. G.. (2012). A social network analysis of student retention using archival data. *Social Psychology of Education*, 15(2), 165–180.
- Eide, E. R., & Showalter, M. H.. (2011). Estimating the relation between health and education: What do we know and what do we need to know? *Economics of Education Review*, 30, 778–791.
- Elfin, M. (1993). Does college still pay? America's best colleges. *U.S. News and World Report*. Retrieved from <http://www.keeppmedia.com/pubs/USNewsWorldReport/1993/10/04/234509?extID=10032andoliID=213>
- Elliott, W. (2009). Children's college aspirations and expectations: The potential role of children's development accounts (CDAs). *Children and Youth Services*, 31, 274–283.
- Elliott, W. (2012a). *Does structural inequality begin with a bank account?* (Creating a Financial Stake in College, Report II). Washington, DC: New America Foundation; St. Louis, MO: Washington University, Center

for Social Development. Retrieved from http://assets.newamerica.net/sites/newamerica.net/files/policydocs/Elliott_II_final1.4.12.pdf

- Elliott, W. (2012b). *Ideas for refining children's savings account proposals*. (Creating a Financial Stake in College, Report IV). Washington, DC: New America Foundation; St. Louis, MO: Washington University, Center for Social Development.
- Elliott, W. (2013a). The effects of economic instability on children's educational outcomes. *Children and Youth Services Review*, 35(3), 461–471.
- Elliott, W. (2013b). Small-dollar children's savings accounts and children's college outcomes. *Children and Youth Services Review*, 35(3), 572–585.
- Elliott, W., & Beverly, S. (2011a). Staying on course: The effects of savings and assets on the college progress of young adults. *American Journal of Education*, 117(3), 343–374.
- Elliott, W., & Beverly, S. (2011b). The role of savings and wealth in reducing “wilt” between expectations and college attendance. *Journal of Children and Poverty*, 17(2), 165–185.
- Elliott, W., with Beverly, S. G., Black, R., & Shapiro, R. (2012). *Linking savings and educational outcomes: Charting a course for scholarship and policy*. Lawrence, KS: University of Kansas, Assets and Education Initiative; St. Louis, MO: Washington University, Center for Social Development. Retrieved from <http://csd.wustl.edu/Publications/Documents/Assets%20and%20Edu%20Report.pdf>
- Elliott, W., Choi, E. H., Destin, M., & Kim, K. (2011). The age old question, which comes first? A simultaneous test of young adult's savings and expectations. *Children and Youth Services Review*, 33(7), 1101–1111.
- Elliott, W., Chowa, G., & Loke, V. (2011). Toward a children's savings and college-bound identity intervention for raising college attendance rates: A multilevel propensity score analysis. *Sociology Mind*, 1(4), 192–205.
- Elliott, W., Constance-Huggins, M., & Song, H. (2012). Improving college progress among low- to moderate-income (LMI) young adults: The role of assets. *Journal of Family and Economic Issues*. doi:10.1007/s10834-012-9341-0
- Elliott, W., Destin, M., & Friedline, T. (2011). Taking stock of ten years of research on the relationship between assets and children's educational outcomes: Implications for theory, policy and intervention. *Children and Youth Services Review*, 33(11), 2312–2328.
- Elliott, W., & Friedline, T. (2013). You pay your share, we'll pay our share. *Economics of Education Review*, 33(1), 134–153.
- Elliott, W., Jung, H., and Friedline, T. (2010). Math achievement and children's savings: Implications for Child Development Accounts. *Journal of Family and Economic Issues*, 31(2), 171–184.
- Elliott, W., Jung, H., & Friedline, T. (2011). Raising math scores among children in low-wealth households: Potential benefit of children's school savings. *Journal of Income Distribution*, 20(2), 72–91.
- Elliott, W., Jung, H., Kim, K., & Chowa, G. (2010). A multi-group structural equation model (SEM) examining asset holding effects on educational attainment by race and gender. *Journal of Children and Poverty*, 16(2), 91–121.
- Elliott, W., & Kim, J. (2013). The role of identity-based motivation and solution-focus brief therapy in unifying accounts and financial education in school-related CDA programs. *Children and Youth Services Review*,

- Elliott, W., Kim, K. H., Jung, H., & Zhan, M. (2010). Asset holding and educational attainment among African American youth. *Children and Youth Services Review*, 32(11), 1497–1507.
- Elliott, W., & Nam, I. (2012). Direct effects of assets and savings on the college progress of Black young adults. *Educational Evaluation and Policy Analysis*, 34(1), 89–108.
- Elliott, W., & Nam, I. (2013a). Reducing student loan debt through parents' college savings. St. Louis, MO: Washington University, Center for Social Development. Retrieved from <http://csd.wustl.edu/Publications/Documents/WP13-07.pdf>
- Elliott, W., & Nam, I. (2013b). *Is student debt jeopardizing the long-term financial health of U.S. households?* Paper presented at Restoring household financial stability after the great recession: Why household balance sheets matter, St. Louis, MO: Federal Reserve Bank of St. Louis.
- Elliott, W., & Nam, I. (forthcoming). All-financial aid does not have the same effects: The benefits of internalizing saving as a strategy for paying for college. *Children and Youth Services Review*.
- Elliott, W., Sherraden, M. S., Johnson, L., & Guo, B. (2010). Young children's perceptions of college and saving: The potential role of child development accounts. *Children and Youth Services Review*, 32(11), 1577–1584.
- Elliott, W., Song, H-a, & Nam, I. (2013a). Small-dollar children's saving accounts and children's college outcomes by income level. *Children and Youth Services Review*, 35(3), 560–571.
- Elliott, W., Song, H-a, & Nam, I. (2013b). Small-dollar accounts, children's college outcomes and wilt. *Children and Youth Services Review*, 35 (3), 535–547.
- Ellwood, D. T., & Kane, T. J. (2000). Who is getting a college education: Family background and the growing gaps in enrollment. In S. Danziger & J. Waldfogel (Eds.), *Securing the future: Investing in children from birth to college* (pp. 283–324). New York: Russell Sage Foundation.
- Elman, C., & Angela M. O'Rand. (2004). The race is to the swift: Socioeconomic origins, adult education, and wage attainment. *American Journal of Sociology*, 110, 123–160.
- Erikson, E. (1963). *Childhood and society* (2nd ed.). New York: Norton.
- Ermisch, J., Jäntti, M., & Smeeding, T. (2012). *From parents to children: The intergenerational transmission of advantage*. New York: Russell Sage Foundation.
- Erskine, Michele & Kier, Cheryl & Leung, Ambrose & Sproule, Robert, 2006. "[Peer crowds, work experience, and financial saving behaviour of young Canadians](#)," *Journal of Economic Psychology*, Elsevier, vol. 27(2), pages 262-284, April.
- Espenshade, T. J., & Radford, A. W. (2009). *No longer separate, not yet equal: Race and class in elite college admission and campus life*. Princeton, NJ: Princeton University Press.
- FAO. (2002). *The group savings resource book: A practical guide to help groups mobilize and manage savings*. Retrieved from <ftp://ftp.fao.org/docrep/fao/005/y4094E/y4094E00.pdf>
- Ferguson, T. (1995). *Golden rule: The investment theory of party competition and the logic of money-driven political systems*. Chicago, IL: The University of Chicago Press.

- Fletcher, J., & Wolfe, B. L. (2008). Child mental health and human capital accumulation: The case of ADHD revisited. *Journal of Health Economics*, 27(3), 794–800.
- Fletcher, J. M., & Lehrer, S. F. (2009). The effects of adolescent health on educational outcomes: Causal evidence using genetic lotteries between siblings. *Forum for Health Economics and Policy*, 12(2), 1558–9544.
- Flink, C., Boggiano, A. K., Main, D. S., Barrett, M., & Katz, P. A. (1992). Children's achievement-related behaviors: The role of extrinsic and intrinsic motivational orientations. In A. K. Boggiano & T. S. Pittman (Eds.), *Achievement and motivation: A social-developmental perspective* (pp. 189–214). New York: Cambridge University Press.
- Flint, T. (1997). Intergenerational effects of paying for college. *Research in Higher Education*, 38(3), 313–344.
- Flynn, J. R. (2007). *What is intelligence?* New York: Cambridge University Press.
- Ford, R., Frenette, M., Nicholson, C., Kwakye, I., Hul, T.S., Hutchison, J., Dobrer, S., Smith Fowler, H., & Hebert, S. (2012). *Future to discover: Post-secondary impacts report*. Ottawa, Ontario: Social Research and Demonstration Corporation.
- Franzblau, S., & Moore, M. (2001). Socializing efficacy: A reconstruction of self-efficacy theory within the context of inequality. *Journal of Community and Applied Social Psychology*, 11, 83–96.
- Friedline, T. (2012). Predicting children's savings: The role of parents' savings for transferring financial advantage and opportunities for financial inclusion. *Children and Youth Services Review*, 34(1), 144–154. doi:10.1016/j.childyouth.2011.09.010
- Friedline, T., Despard, M., & Chowa, G. (2012). *Connections with banks and diverse asset portfolios in young adulthood: Evidence for children's savings from the Survey of Income and Program Participation*. Lawrence, KS: University of Kansas, Assets and Education Initiative.
- Friedline, T., & Elliott, W. (2011). Predicting savings for White and Black young adults: An early look at racial disparities in savings and the potential role of Children's Development Accounts (CDAs). *Journal of Race and Social Problems*, 3(2), 99–118.
- Friedline, T., & Elliott, W. (2013). Connections with banking institutions and diverse asset portfolios in young adulthood: Children as potential future investors. *Children and Youth Services Review*, 35(6), 994–1006.
- Friedline, T., Elliott, W., & Chowa, G. (2013). Testing an asset-building approach for young people: Early access to savings predicts later savings. *Economics of Education Review*, 33(1), 31–51.
- Friedline, T., Elliott, W., & Nam, I. (2011). Predicting savings from adolescence to young adulthood: A propensity score analysis. *Journal for the Society of Social Work and Research*, 2(1), 1–22.
- Friedline, T., Elliott, W., & Nam, I. (2012). Predicting savings and mental accounting among adolescents: The case of college. *Children and Youth Services Review*, 34, 1884–1895.
- Friedline, T., Elliott, W., & Nam, I. (2013). Small-dollar children's savings accounts and children's college outcomes by race. *Children and Youth Services Review*, 35(3), 548–559.
- Friedline, T., Nam, I., & Loke, V. (2013). *Households' net worth accumulation patterns and young adults' financial well-being: Ripple effects of the great recession?* Lawrence, KS: University of Kansas, School of Social Welfare.

- Friedline, T., & Song, H. (2013). *Accumulating assets, debts in young adulthood: Children as potential future investors*. Lawrence, KS: University of Kansas, Assets and Education Initiative.
- Fry, R. (2012). *A record one-in-five households now owe student loan debt*. Washington, DC: Pew Research Center. Retrieved from <http://www.pewsocialtrends.org/2012/09/26/a-record-one-in-five-households-now-owe-student-loan-debt/>
- Furby, L. (1980). The origins and early development of possessive behavior. *Political Psychology*, 2(Spring), 30–42.
- Furnham, A. (1999). The saving and spending habits of young people. *Journal of Economic Psychology*, 20(6), 677–697.
- Furnham, A., & Thomas, P. (1984). Pocket money: A study of economic education. *British Journal of Developmental Psychology*, 2, 205–212.
- Gans, H. J. (1968). Culture and class in the study of poverty: An approach to anti-poverty research. In D. P. Moynihan (Ed.), *On understanding poverty* (pp. 201–228). New York: Basic Books.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.
- Gardner, H. (1993). *Frames of mind*. New York: Basic Books.
- Garman, E. T., Leech, I. E., & Grable, J. E. (1996). The negative impact of employee poor personal financial behaviors on employers. *Financial Counseling and Planning*, 7, 157–168.
- Gecas, V. (1989). The social psychology of self-efficacy. *Annual Review of Sociology*, 15, 291–316.
- Gicheva, D. (2011). *Does the student-loan burden weigh into the decision to start a family?* Retrieved from http://www.uncg.edu/bae/people/gicheva/Student_loans_marriageMarch11.pdf
- Gilens, M. (1999). *Why Americans hate welfare: Race, media, and the politics of antipoverty policy*. Chicago, IL: University of Chicago Press.
- Goldberg, F. (2005). The universal piggy bank: Designing and implementing a system of savings accounts for children. In M. Sherraden (Ed.), *Inclusion in the American dream: Assets, poverty, and public policy*. New York: Oxford University Press.
- Goldberg, E. T., Jr., Friedman, B., & Boshara, R. (2010). CSA legislative challenges and opportunities. *Children and Youth Services Review*, 32(11), 1609–1616.
- Goldiner, D. (2009, June 10). Daughter mistakenly throws out mom's old mattress stuffed with \$1 million. *NY Daily News*. Retrieved from http://articles.nydailynews.com/2009-06-10/news/17924403_1_mattress-israeli-paper-tel-aviv-woman
- Goldrick-Rab, S. (2006). Following their every move: An investigation of social-class differences in college pathways. *Sociology of Education*, 79(1), 61–79.
- Goldrick-Rab, S., & Fabian, T. P. (2009). Beyond access: Explaining socioeconomic differences in college transfer. *Sociology of Education*, 82(2), 101–125.
- Goldrick-Rab, S., Harris, D. N., & Trostel, P. A. (2009). How and why financial aid does (or doesn't) matter for college success. In J. C. Smart (Ed.), *Higher education: Handbook of theory and research* (Vol. 24) (pp. 1–45).

- Gottfredson, L. S. (1981). Circumscription and compromise: A developmental theory of occupational aspirations. *Journal of Counseling Psychology Monograph*, 28(6), 545–578.
- Gould, M. (1999). Race and theory: Culture, poverty, and adaptation discrimination in Wilson and Ogbu. *Sociological Theory*, 17(2), 171–200.
- Graham, S. (1994). Motivation in African Americans. *Review of Educational Research*, 64(1), 55–17.
- Grant, K. (2012, December 4). Deposit a million bucks, get a Mercedes. *The Wall Street Journal*. Retrieved from <http://online.wsj.com/article/SB10001424052702304743704577382571992555712.html>
- Graves, S. (2003). Landscapes of predation, landscapes of neglect: A location analysis of payday lenders and banks. *The Professional Geographer*, 55(3), 303–317.
- Greene, K. (2012). New peril for parents: Their kids' student loans. *The Wall Street Journal*. Retrieved from <http://online.wsj.com/article/SB10000872396390444024204578044622648516106.html>
- Greenwald, R. (2012, November 11). Think of first-generation students as pioneers, not problems. *The Chronicle of Higher Education*. Retrieved from <http://chronicle.com/article/Think-of-First-Generation/135710/>
- Greeson, J. K. P., Usher, L., & Grinstein-Weiss, M. (2010). One adult who is crazy about you: Can natural mentoring relationships increase assets among young adults with and without foster care experience. *Children and Youth Services Review*, 32(4), 565–577.
- Grinstein-Weiss, M., Sherraden, M., Gale, W. G., Rohe, William M., Schreiner, M., & Key, C. (2013). Long-term effects of individual development accounts on postsecondary education: Follow-up evidence from a randomized experiment. *Economics of Education Review*, 33(1), 58–68.
- Grinstein-Weiss, M., Spader, J., Yeo, Y. H., Taylor, A., & Freeze, E. B. (2011). Parental transfer of financial knowledge and later credit outcomes among low-and-moderate-income homeowners. *Children and Youth Services Review*, 33(1), 78–85.
- Grinstein-Weiss, M., Yeo, Y. H., Despard, M. R., Zhan, M., & Casalotti, A. (2010). Does banking experience matter? Differences of the banked and unbanked in Individual Development Accounts. *Journal of Family and Economic Issues*, 31, 212–227.
- Grinstein-Weiss, M., Yeo, Y. H., Irish, K., & Zhan, M. (2009). Parental assets: A pathway to positive child outcomes. *Journal of Sociology and Social Welfare*, 36(1), 61–85.
- Grodsky, E., & Jones, M. T. (2007). Real and imagined barriers to college entry: Perceptions of cost. *Social Science Research*, 36, 745–766.
- Grody, A. D., Grody, D., Kromann, E., & Sutliff, J. (2008). *A financial literacy and financial services program for elementary school grades—Results of a pilot study*. Retrieved from <http://ssrn.com/abstract=1132388>
- Guo, G., Roettger, M. E., & Cai, T. (2008). The integration of genetic propensities into social-control models of delinquency and violence among male youths. *American Sociological Review*, 73(4), 543–568.
- Hahn, R. D., & Price, D. V. (2008). *Promise lost: College-qualified students who don't enroll in college*. Washington, DC: Institute for Higher Education Policy.
- Hallinan, M. T. (1996). Track mobility in secondary school. *Social Forces*, 74, 983–1002.

- Hamilton, L. T. (2013). More is more or more is less? Parental financial investments during college. *American Sociological Review*, 78(1), 70–95.
- Hanson, S. (1994). Lost talent: Unrealized educational expectations and aspirations among U.S. youth. *Sociology of Education*, 67(3), 159–183.
- Harnisch, T. L. (2009). *State early commitment programs: A contract for college success?* Washington, DC: American Association of State Colleges and Universities.
- Harris, D. N., & Orr, L. (2012, October). *The degree project: A test of promise scholarships*. Paper presented at the Conference on Field Experiments in Policy Evaluation, Nuremberg, Germany.
- Harrod, R. F. (1948). *Towards a dynamic economics*. London, UK: Macmillan.
- Harter, S. (1992). The relationship between perceived competence, affect, and motivational orientation within the classroom: Processes and patterns of change. In A. K. Boggiano & T. S. Pittman (Eds.), *Achievement and motivation A social developmental perspective* (pp. 77–114). Cambridge, MA: Cambridge University Press.
- Harter, S., & Pike, R. (1984). The pictorial scale of perceived competence and social acceptance for young children. *Child Development*, 55, 1969–1982.
- Haskins, R. (2008). Education and economic mobility. In J. B. Isaacs, I. V. Sawhill, & R. Haskins (Eds.), *Getting ahead or losing ground: Economic mobility in America*. Washington, DC: The Brookings Institution.
- Haveman, R., & Wilson, K. (2007). Economic inequality in college access, matriculation, and graduation. In S. Dickert-Colin & R. Rubenstein (Eds.), *Economic inequality and higher education access, persistence, and success* (pp. 20–59). New York: Russell Sage Foundation.
- Heckman, J. J., & Masterov, D. V. (2007). The productivity argument for investing in young children. *Review of Agricultural Economics*, 29(3), 446–493.
- Heller, D. E. (2006). Early commitment of financial aid eligibility. *American Behavioral Scientist*, 49, 1719–1738.
- Heller, D. E. (2008). The impact of student loans on college access. In S. Baum, M. McPherson, & P. Steele (Eds.), *The effectiveness of student aid policies: What the research tells us* (pp. 39–68). New York: College Board.
- Heller, D. E., & Rogers, K. R. (2006). Shifting the burden: Public and private financing of higher education in the United States and implications for Europe. *Tertiary Education and Management*, 12(2), 91–117.
- Henderson, S., Hesketh, B., & Tuffin, K. (1988). A test of Gottfredson's theory of circumscription. *Journal of Vocational Behavior*, 32, 37–48.
- Hertz, T., Jayasundera, T., Piraino, P., Selcuk, S., Smith, N., & Verashchagina, A. (2007). The inheritance of educational inequality: Intergenerational comparison and fifty-year trends. *The B.E. Journal of Economic Analysis and Policy*, 7(2), 1935–1682.
- Hochschild, J., & Scovronick, N. (2003). *The American dream and the public schools*. New York: Oxford University Press.
- Hochschild, J. L. (1995). *Facing up to the American dream: Race, class, and the soul of the nation*. Princeton, NJ: Princeton University Press.
- Hogarth, J. M., Anguelov, C. E., & Lee, J. (2003). Can the poor save? *The Journal of the Association for Financial*

- Hogarth, J. M., Anguelov, C. E., & Lee, J. (2005). Who has a bank account? Exploring changes over time, 1989–2001. *Journal of Family and Economic Issues*, 26(1), 7–25.
- Horn, L. J., Chen, X., & Chapman, C. (2003). *Getting ready to pay for college: What students and their parents know about the cost of college tuition and what they are doing to find out*. Washington, DC: National Center for Education Statistics.
- Hossler, D., & Gallagher, K. S. (1987). Studying student college choice: A three-phase model and the implications for policymakers. *College and University*, 62(3), 207–221.
- Hout, M. (1984). Status, autonomy, and training in occupational mobility. *American Journal of Sociology*, 89(6), 379–409.
- Hout, M. (1988). More universalism, less structural mobility: The American occupational structure in the 1980s. *American Journal of Sociology*, 93(6), 1358–1400.
- Hu, S., & St. John, E. P. (2001). Persistence in a public higher education system: Understanding racial and ethnic differences. *The Journal of Higher Education*, 72(2), 265–286.
- Huang, J. (2013). Intergenerational transmission of educational attainment: The role of household assets. *Economics of Education Review*, 33(1), 112–123.
- Huang, J., Guo, B., Kim, Y., & Sherraden, M. (2010). Parental income, assets, borrowing constraints and children's post-secondary education. *Children and Youth Services Review*, 32, 585–594.
- Institute for College Access and Success. (2008). *Paving the way: How financial aid awareness affects college access and success*. Washington, DC: Institute for College Access and Success. Retrieved from http://projectonstudentdebt.org/fckfiles/Paving_the_Way.pdf
- Internal Revenue Service. (2013). *Earned income credit for 2012: Do I qualify?* Washington, DC: Internal Revenue Service.
- Jahoda, G., & France, A. (1979). The construction of economic reality by some Glaswegian children. *European Journal of Social Psychology*, 9, 115–127.
- Jäntti, M., Bernt B., Roed, K., Raaum, O., Naylor, R., Osterbacka, E., & Eriksson, T. (2006). American exceptionalism in a new light: A comparison of intergenerational earnings mobility in the Nordic countries, the United Kingdom and the United States (Discussion Paper No. 1938). Bonn, Germany: Institute for the Study of Labor (IZA).
- Jez, S. J. (2008). *The influence of wealth and race in four-year college attendance* (Research and Occasional Paper Series CSHE 18.08). Berkeley, CA: University of California Berkeley, Center for Studies in Higher Education.
- John, D. C. (2010). Perspective from the right building a cross-ideological consensus for child development accounts. *Children and Youth Services Review*, 32(11), 1601–1604.
- John, D. R. (1999). Consumer socialization of children: A retrospective look at twenty-five years of research. *The Journal of Consumer Research*, 26(3), 183–213.
- Johnson, H. B. (2006). *The American dream and the power of wealth: Choosing schools and inheriting inequality in the land of opportunity*. New York: Routledge.

- Johnson, E., & Sherraden, M. S. (2007). From financial literacy to financial capability among youth. *Journal of Sociology and Social Welfare*, 34(3), 119–145.
- Johnson, T., Adams, D., & Kim, J. S. (2010). Mapping the perspectives of low-income parents in a children's college savings account program. *Children and Youth Services Review*, 32(1), 129–136. doi:10.1016/j.childyouth.2009.08.008
- Jones, J. N., Miron, G., & Kelaher-Young, A. J. (2012). The Kalamazoo promise and perceived changes in teacher beliefs, expectations, and behaviors. *Journal of Educational Research*, 105(1), 36–51.
- Jorgensen, B., & Salva, J. (2010, October). Financial literacy of young adults: The importance of parental socialization. *Family Relations*, 59, 465–478.
- Kalyanwala, S., & Sebstad, J. (2006). *Spending, saving, and borrowing: Perceptions and experiences of girls in Gujarat*. New Delhi, India: Population Council.
- Kao, G., & Tienda, M. (1998). Educational aspirations of minority youth. *American Journal of Education*, 106, 349–384.
- Kazdin, A. E. (1978). Conceptual and assessment issues raised by self-efficacy theory. *Advances in Behavior Research and Therapy*, 1, 177–185.
- Keister, M. P. (2000). *Wealth in America*. Cambridge, MA: Cambridge University Press.
- Khan, S. (2011). *Privilege: The making of an adolescent elite at St. Paul's school*. Princeton, NJ: Princeton University Press.
- Kim, J., LaTaillade, J., & Kim, H. (2011). Family processes and adolescents' financial behaviors. *Journal of Family and Economic Issues*, 32(4), 668–679.
- Kim, Y., & Sherraden, M. (2011). Do parental assets matter for children's educational attainment? Evidence from mediation tests. *Children and Youth Services Review*, 33(6), 969–979.
- Kim, Y., Sherraden, M., & Clancy, M. (2013). Do mothers' educational expectations differ by race and ethnicity or socioeconomic status? *Economics of Education Review*, 33(1), 89–94.
- King, J. (2012). *What do we want from our tax system? A financial security credit*. Washington, DC: The New America Foundation.
- King, J. E. (2006). *Missed opportunities revisited: New information on students who do not apply for financial aid*. Washington, DC: American Council on Education Center for Policy Analysis.
- Klasik, D. (2012). The college application gauntlet: A systematic analysis of the steps to four-year college enrollment. *Research in Higher Education*, 53, 506–549.
- Knight, Jack. (1992). *Institutions and social conflict*. Cambridge, MA: Cambridge University Press.
- Kornrich, S., & Furstenberg, F. (2010). *Investing in children: Changes in parental spending on children 1972 to 2007*. University of Sydney: United States Studies Center.
- Kourilsky, M. (1977). The kinder-economy: A case study of kindergarten pupils' acquisition of economic concepts. *The Elementary School Journal*, 77(3), 182–191.
- Kozol, J. (1991). *Savage inequalities*. New York: Harper Collins.

- Kvarme, L. G., Helseth, S., Sorum, R., Luth-Hansen, V., Haugland, S., & Natvig, G. K. (2010). The effect of a solution-focused approach to improve self-efficacy in socially withdrawn school children: A non-randomized controlled trial. *International Journal of Nursing Studies*, 47, 1389–1396.
- Lahav, E., Benzion, U., & Shavit, T. (2010). Subjective time discount rates among teenagers and adults: Evidence from Israel. *The Journal of Socio-Economics*, 39, 458–465.
- LaManque, A. (2009). Factors associated with delayed submission of the free application for federal financial aid. *Journal of Applied Research in the Community College*, 17, 6–12.
- Langer, B. (2005). Research note consuming anomie: Children and global commercial culture. *Childhood*, 12(2), 259–271.
- Langer, E. (1994). The illusion of calculated decisions. *Beliefs, reasoning, and decision making: Psycho-logic in honor of Bob Abelson*, 33–53.
- Langhout, R. D., Drake, P., & Rosselli, F. (2009). Classism in the university setting: Examining student antecedents and outcomes. *Journal of Diversity in Higher Education*, 2(3), 166–181.
- Lareau, A. (2002). Invisible inequality: Social class and childrearing in black families and white families. *American Sociological Review*, 67, 747–776.
- Lareau, A. (2003). *Unequal childhoods: Class, race, and family life*. Berkeley, CA: University of California Press.
- Lareau, A. (2011). *Unequal childhoods: Race, class, and family life* (2nd ed., A decade later). Berkeley, CA: University of California Press.
- Lascu, D. N., Manrai, A. K., Manrai, L. A., & Amissah, F. B. (2013). Online marketing of food products to children: The effects of national consumer policies in high-income countries. *Young Consumers: Insight and Ideas for Responsible Marketers*, 14(1), 19–40.
- Lassar, T., Clancy, M., & McClure, S. (2010). Toward more inclusive college savings plans: Sample state legislation (CSD Policy Report 10-02). St. Louis, MO: Washington University, Center for Social Development.
- Leiser, D. (1983). Children's conception of economics: The constitution of a cognitive domain. *Journal of Economic Psychology*, 4(4), 297–317.
- Leiser, D., & Ganin, M. (1996). Economic participation and economic socialization. In P. K. Lunt & A. Furnham (Eds.), *Economic socialization: The economic beliefs and behaviors of young people* (pp. 93–109). Cheltenham, UK: Edward Elgar.
- Lerman, R., & McKernan, S. M. (2008). The effects of holding assets on social and economic outcomes of families: A review of theory and evidence. Washington, DC: U.S. Department of Health and Human Services; The Urban Institute. Retrieved from <http://aspe.hhs.gov/hsp/07/poorfinances/Effects/index.shtml>
- Lewis, O. (1966). Introduction *La Vida; a Puerto Rican family in the culture of poverty—San Juan and New York*. New York: Random House.
- Lino, M. (2012). *Expenditure on children by families, 2011*. Washington, DC: U.S. Department of Agriculture, Center for Nutrition Policy and Promotion.
- Loehlin, J. C. (2005). Resemblance in personality and attitudes between parents and their children: Genetic and

- environmental contributions. In S. Bowles, H. Gintis, & M. Osborne Groves (Eds.), *Unequal chances: Family background and economic success* (pp. 192–207). New York: Russell Sage Foundation.
- Loibl, C., Grinstein-Weiss, M., Zhan, M., & Red Bird, B. (2010). More than a penny saved: Long-term changes in behavior among savings program participants. *The Journal of Consumer Affairs*, 44(1), 98–126.
- Loibl, C., & Scharff, R. L. (2010). Examining the effect of expressing a quantitative goal on consumer savings. *Journal of Consumer Affairs*, 44(1), 127–154.
- Loke, V. (2013). Parental asset accumulation trajectories and children's college outcomes. *Economics of Education Review*, 33(1), 124–133.
- Loke, V., & Sacco, P. (2011). Changes in parental assets and children's educational outcomes. *Journal of Social Policy*, 40(2), 351–368.
- Loke, V., & Sherraden, M. (2009). Building assets from birth: A global comparison of child development account policies. *International Journal of Social Welfare*, 18(2), 119–129.
- Long, M. C., Conger, D., & Iatarola, P. (2012). Effects of high school course-taking on secondary and postsecondary success. *American Educational Research Journal*, 49, 285–322.
- Lucas, S. R., & Berends, M. (2002). Sociodemographic diversity, correlated achievement, and de facto tracking. *Sociology of Education*, 75, 328–348.
- Luhmann, N., & Albrow, M. (1985). *A sociological theory of law*. Boston, MA: Routledge and Kegan Paul.
- Luna de la Rosa, R. M. (2006). Is opportunity knocking? Low-income students' perceptions of college and financial aid. *American Behavioral Scientist*, 49, 1670–1686.
- Lunt, P. K., & Furnham, A. (1996). *Economic socialization: The economic beliefs and behaviors of young people*. Cheltenham, UK: Edward Elgar Publishing.
- Lusardi, A., & Mitchell, O. (2007). Financial literacy and retirement preparedness: Evidence and implications for financial education. *Business Economics*, 42(1), 35–44.
- Lusardi, A., Mitchell, Olivia S., & Curto, Vilsa. (2010). Financial literacy among the young. *The Journal of Consumer Affairs*, 44(2), 358–380.
- Lusardi, A., Schneider, D., & Tufano, P. (2011). Financially fragile households: Evidence and implications. *Brookings Papers on Economic Activity*, 83–134.
- Lyons, A., & Scherpf, E. (2004). Moving from unbanked to banked: Evidence from the Money Smart program. *Financial Service Review*, 13(3), 215–231.
- Mandell, L. (2002). *Financial literacy: A growing problem*. Washington, DC: The Jump\$tart Coalition for Personal Financial Literacy.
- Mandell, L. (2005). *Financial literacy—Does it matter?* Buffalo, NY: University at Buffalo Department of Finance and Managerial Economics and the Jump\$tart Coalition. Retrieved from <http://www.jumpstartcoalition.com/upload/Mandell%20Paper%20April%202005.doc>
- Mandell, L. (2006). *Teaching young dogs old tricks: The effectiveness of financial literacy interventions in pre-high school grades*. Washington, DC: The Jump\$tart Coalition for Personal Financial Literacy.

- Mandell, L., & Klein, L. S. (2009). The impact of financial literacy education on subsequent financial behavior. *Journal of Financial Counseling and Planning*, 20, 15–24.
- Mann, H. (1848). *Twelfth annual report of the Board of Education*. Boston: MA: Dutton and Wentworth.
- Mare, R. M., & Tzeng, M.-S. (1989). Fathers' ages and the social stratification of sons. *American Journal of Sociology*, 95(1), 108–131.
- Marshall, D. (2010). *Understanding children as consumers*. Thousand Oaks, CA: Sage Publications.
- Marshall, R., Chuan, N. E., & WoonBong, N. (2002). Children's use of consumer heuristics. *Advances in Consumer Research*, 29, 108–113.
- Martin, A. (2012). Debt collectors cashing in on student loans. *New York Times*. Retrieved from <http://www.nytimes.com/2012/09/09/business/once-a-student-now-dogged-by-collection-agencies.html?hp>
- Mason, L. R., Nam, Y., Clancy, M., Kim, Y., & Loke, V. (2010). Child development accounts and saving for children's future: Do financial incentives matter? *Children and Youth Services Review*, 32(11), 1570–1576.
- Mauldin, T., Mimura, Y., & Lino, M. (2001). Parental expenditures on children's education. *Journal of Family and Economic Issues*, 22(3), 221–241.
- Mazumder, B. (2003). Family resources and college enrollment. *Economic Perspectives*, 27(4), 30–34.
- McCormick, M. H. (2009). The effectiveness of youth financial education: A review of the literature. *Journal of Financial Counseling and Planning*, 20, 70–83.
- McGee, J., & Stockard, J. (1991). From a child's view: Children's occupational knowledge and perceptions of occupational characteristics. In N. Mandell (Ed.), *Sociological studies of child development: Volume 4, Perspectives on and of children* (pp. 113–136). Greenwich, CT: JAI Press.
- McKernan, S.-M., Ratcliffe, C., & Vinopal, K. (2009). *Do assets help families cope with adverse events? Perspectives on low-income working families, Brief 10*. Washington, DC: Urban Institute.
- McLeod, J. D., Uemura, R., & Rohrman, S. (2012). Adolescent mental health, behavior problems, and academic achievement. *Journal of Health and Social Behavior*, 53(4), 482–497.
- McNeal, J. U. (1987). *Children as consumers: Insights and implications*. Lexington, MA: Lexington Books.
- Meeks, C. B. (1998). Factors influencing adolescents' income and expenditures. *Journal of Family and Economic Issues*, 19(2), 131–149.
- Mello, Z. R. (2009). Racial/ethnic group and socioeconomic status variation in educational and occupational expectations from adolescence to adulthood. *Journal of Applied Developmental Psychology*, 30, 494–504.
- Merton, R. K. (1957). *Social theory and social structure*. Glencoe, IL: Free Press.
- Miller, J., & Yung, S. (1990). The role of allowances in adolescent socialization. *Youth and Society*, 22, 137–159.
- Minicozzi, A. (2005). The short term effect of educational debt on job decisions. *Economics of Education Review*, 24(4), 417–430.
- Mishel, L., Bernstein, J., & Shierholz, H. (2009). *The state of working America 2008/2009*. Ithaca, NY: H.R. Press.

- Mishel, L., Bivens, J., Gould, E., & Shierholz, H. (2013). *The state of working America* (12th ed.) Ithaca, NY: Economic Policy Institute Book, Cornell University Press.
- Mishory, J., O'Sullivan, R., & Invincibles, Y. (2012). I. Retrieved from <http://younginvincibles.org/wp-content/uploads/2012/08/Denied-The-Impact-of-Student-Debt-on-the-Ability-to-Buy-a-House-8.14.12.pdf>
- Mortimer, J., Dennehy, K., Lee, C., & Finch, M. (1994). Economic socialization of the American family: The prevalence, distribution, and consequences of allowance arrangements. *Family Relations*, 43(1), 23–29.
- Moschis, G. P. (1987). *Consumer socialization: A life-cycle perspective* (2nd ed.). Lexington, KY: Lexington Books.
- Nam, Y., & Huang, J. (2009). Equal opportunity for all? Parental economic resources and children's educational achievement. *Children and Youth Services Review*, 31(6), 625–634.
- Nam, Y., Kim, Y., Clancy, M., Zager, R., & Sherraden, M. (2013). Do child development accounts promote account holding, saving, and asset accumulation for children's future? Evidence from a statewide randomized experiment. *Journal of Policy Analysis and Management*, 32(1), 6–33.
- National Center for Education Statistics. (2011). Digest of Education Statistics 2011, Table 345. Washington, DC: National Center for Education Statistics. Retrieved from http://nces.ed.gov/programs/digest/d11/tables/dt11_345.asp
- Neale, W. C. (1987). Institutions. *Journal of Economic Issues*, 21(3), 1177–206.
- Ng, S. H. (1983). Children's ideas about the bank and shop profit: Developmental stages and the influence of cognitive contrasts and conflict *Journal of Economic Psychology*, 4(3), 209–221.
- Ng, S. H. (1985). Children's ideas about the bank: A New Zealand replication. *European Journal of Social Psychology*, 15, 121–123.
- Nilsson, P. (2008). *Does a pint a day affect your child's pay? The effect of prenatal alcohol exposure on adult outcomes* (Working Paper CWP22/08). London, UK: University College London, Centre for Microdata Methods and Practice, Institute for Fiscal Studies. Retrieved from www.cemmap.ac.uk/wps/cwp2208.pdf
- Nilsson, P. (2009). *The long-term effects of early childhood lead exposure: Evidence from sharp changes in local air lead levels induced by the phase-out of leaded gasoline*. London, UK: Uppsala University, Centre for Microdata Methods and Practice, Institute for Fiscal Studies. Retrieved from http://www.mnb.hu/Root/Dokumentumtar/ENMNB/Kutatas/mnben_konf_fomenu/mnben_mnben_conference2009/paper_nilsson_20091109.pdf
- North, D. (1990). *Institutions, institutional change, and economic performance*. Cambridge, MA: Cambridge University Press.
- North, D. (2005). *Understanding the process of economic change*. Princeton, NJ: Princeton University Press.
- Novak, H., & McKinney, L. (2011). The consequences of leaving money on the table: Examining persistence among students who did not file a FAFSA. *Journal of Student Financial Aid*, 41, 6–23.
- Nussbaum, M. 2000. *Women and human development: The capabilities approach*. Cambridge, MA: Cambridge University Press.
- O'Connor, N., Hammack, F. M., & Scott, M. A. (2010). Social capital, financial knowledge, and Hispanic student college choices. *Research in Higher Education*, 51, 195–219.

- Ogbu, J. U. (1983). Minority status and schooling in plural societies. *Comparative Education Review*, 27(2), 168–190.
- Ogbu, J. U., & Simons, H. D. (1998). Voluntary and involuntary minorities: A cultural-ecological theory of school performance with some implications for education. *Anthropology and Education Quarterly*, 29(2), 155–188.
- Oliff, P., Palacios, V., Johnson, I., & Leachman, M. (2013). *Recent deep state higher education cuts may harm students and the economy for years to come*. Washington, DC: Center for Budget and Policy Priorities.
- Oliver, M. L., & Shapiro, T. M. (1995). *Black wealth, white wealth: A new perspective on racial inequality*. New York: Routledge.
- Oreopoulos, Philip, Marianne Page and Ann Stevens. Does Human Capital Transfer from Parent to Child? The Intergenerational Effects of Compulsory Schooling. *Journal of Labor Economics* 24 (October 2006). 729–760.
- Oreopoulos, P., Stabile, M., Roos, L., & Walld, R. (2008). The short, medium, and long term effects of poor infant health. *Journal of Human Resources*, 43(1), 88–138.
- Orr, A. (2003). Black-white differences in achievement: The importance of wealth. *Sociology of Education*, 76(4), 281–304.
- Ostrove, J. M., & Long, S. M. (2007). Social class and belonging: Implications for college adjustment. *The Review of Higher Education*, 30(4), 363–389.
- Otto, A., Schots, P., Westerman, J., & Webley, P. (2006). Children's use of saving strategies: An experimental approach. *Journal of Economic Psychology*, 27, 57–72.
- Oyserman, D. (2007) Social identity and self-regulation. In A. Kruglanski & T. Higgins (Eds.). *Handbook of social psychology* (2nd ed.) (pp. 432–453). New York: Guilford Press.
- Oyserman, D. (2009). Identity-based motivation: Implications for action-readiness, procedural readiness, and consumer behavior. Target article. *Journal of Consumer Psychology*, 19, 250–260.
- Oyserman, D. (2013). Not just any path: Implications of identity-based motivation for school outcome disparities. *Economics of Education Review*, 33(1), 179–190.
- Oyserman, D., Bybee, D., Terry, K., & Hart-Johnson, T. (2004). Possible selves as roadmaps. *Journal of Research in Personality*, 38, 130–149.
- Oyserman, D., & Destin, M. (2010). Identity-based motivation: Implications for intervention. *The Counseling Psychologist*, 38(7), 1001–1043.
- Ozmete, E. (2009). Parent and adolescent interaction in television advertisements as consumer socialization agents. *Education*, 129(3), 372–381.
- Pandey, S., & Zhan, M. (2000). The effects of urban poverty on parents' expectations of their children's achievement. *Advances in Social Work*, 1(1), 107–125.
- Paris, S. G., & Byrnes, J. P. (1989). The constructivist approach to self-regulation and learning in the classroom. In B. J. Zimmerman & D. H. Schunk (Eds.), *Self-regulated learning and academic achievement* (pp. 169–200). New York: Springer-Verlag.

- Paulsen, M. B., & St. John, E. P. (2002). Social class and college costs: Examining the financial nexus between college choice and persistence. *Journal of Higher Education*, 73(3), 189–236.
- Peng, T. M., Bartholomae, S., Fox, J. J., & Cravener, G. (2007). The impact of personal finance education delivered in high school and college courses. *Journal of Family and Economic Issues*, 28, 265–284.
- Perna, L. W. (2000). Differences in the decision to attend college among African Americans, Hispanics, and whites. *The Journal of Higher Education*, 71(2), 117–141.
- Perry, V. G., & Morris, M. D. (2005). Who is in control? The role of self-perception, knowledge, and income in explaining consumer financial behavior. *Journal of Consumer Affairs*, 39(2), 299–313.
- Pescosolido, B. A., Martin, J. K., Lang, A., & Olafsdottir, S. (2008). Rethinking theoretical approaches to stigma: A framework integrating normative influences on stigma (FINIS). *Social Science and Medicine*, 67(3), 431–440.
- Pew Charitable Trusts. (2013). *Hard choices: Navigating the economic shock of unemployment*. Washington, DC: Pew Charitable Trusts. Retrieved from <http://www.pewstates.org/>
- Phelan, G. K., & Schvaneveldt, J. D. (1969). Spending and saving patterns of adolescent siblings. *Journal of Home Economics*, 61(2), 104–109.
- Phillips, M., Brooks-Gunn, J., Duncan, G. J., Klebanov, P., & Crane, J. (1998). Family background, parenting practices, and the black-white test score gap. In C. Jencks, & M. Phillips (Eds.), *The black-white test score gap* (pp. 273–317). Washington, DC: Brookings Institution Press.
- Poterba, J. M., Venti, S. F., & Wise, D. A. (1996). How retirement saving programs increase saving. *Journal of Economic Perspectives*, 10(4), 91–112.
- Powell, B., & Steele, C. M. (1995). Feeling the pinch: Child spacing and constraints on parental economic investments in children. *Social Forces*, 73(4), 1465–1486.
- Powell, B., & Steelman, L. C. (1990). Beyond sibship size: Sibling density, sex composition, and educational outcomes. *Social Forces*, 69, 181–206.
- Pritchard, M. E., Myers, B. K., & Cassidy, D. (1989). Factors associated with adolescent saving and spending patterns. *Adolescence*, 24(95), 711–723.
- Pungello, E. P., Kupersmidt, J. B., Burchinal, M. R., & Patterson, C. J. (1996). Environmental risk factors and children's achievement from middle childhood to early adolescence. *Development Psychology*, 32, 755–767.
- Rank, M. (2004). *One nation, underprivileged: How American poverty affects us all*. New York: Oxford University Press.
- Rank, M. R., & Hirschl, T. A. (2001). Rags or riches? Estimating the probabilities of poverty and affluence across the adult American life span. *Social Science Quarterly*, 82(4), 651–669.
- Rees, D. I., Argys, L. M., & Brewer, D. J. (1996). Tracking in the United States: Descriptive statistics from NELS. *Economics of Education Review*, 15, 83–89.
- Retsinas, N. P., & Belsky, E. S. (2005). *Building assets, building credit: Creating wealth in low-income communities*. Washington, DC: Brookings Institution Press.

- Rettig, K. D., & Mortenson, M. (1986). Household production of family management competencies. In R. Deacon & W. Huffman (Eds.), *Human resources research 1887–1987*. Ames, IA: Iowa State University.
- Reyes, J. W. (2008). College financial aid rules and the allocation of savings. *Education Economics*, 16(2), 167–189.
- Reynolds, J. R., & Pemberton, J. (2001). Rising college expectations among youth in the United States: A comparison of the 1979 and 1997 NLSY. *The Journal of Human Resources*, 36(4), 703–726.
- Rhine, S. L. W., Greene, W. H., & Toussaint-Comeau, M. (2006). The importance of check-cashing businesses to the unbanked: Racial/ethnic differences. *The Review of Economics and Statistics*, 88(1), 146–157.
- Richards, K. V., & Thyer, B. A. (2011). Does individual development account participation help the poor: A review. *Research on Social Work Practice*, 21, 348–362.
- Rist, R. C. (1977). On understanding the process of schooling: Contributions of labeling theory. In J. Karabel & A. H. Halsey (Eds.), *Power and ideology in education* (pp. 292–305), New York: Oxford University Press.
- Rodman, H. (1963). The lower-class value stretch. *Social Forces*, 42(2), 205–215.
- Rosenbaum, J., Reynolds, L., & DeLuca, S. (2002). How do places matter? The geography of opportunity, self-efficacy and a look inside the black box of residential mobility. *Housing Studies*, 17(1), 71–82.
- Ross, T., Kena, G., Rathbun, A., Kewal Ramani, A., Xhang, J., Kristapovich, P., & Manning, E. (2012). *Higher education: Gaps in access and persistence study* (NCES 2012-046). Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Rothstein, J., & Rouse, C. E. (2011). Constrained after college: Student loans and early-career occupational choices. *Journal of Public Economics*, 95, 149–163.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs*, 80(1), 1–28.
- Rowan-Kenyon, H. T., Bell, A. D., & Perna, L. W. (2008). Contextual influences on parental involvement in college going: Variations by socioeconomic class. *The Journal of Higher Education*, 79, 564–586.
- Royer, H. (2009). Separated at birth: US twin estimates of the effects of birth weight. *American Economic Journal: Applied Economics*, 1(1), 49–85.
- Sacerdote, B. (2001). Peer effects with random assignment: Results for Dartmouth roommates. *The Quarterly Journal of Economics*, 116(2), 681–704.
- Sallie Mae. (2009). *How America saves*. Retrieved from: <http://www.salliemae.com>
- Sallie Mae. (2011). *How America pays for college 2011*. Newark, DE: Sallie Mae. Retrieved from https://www1.SallieMae.com/about/news_info/research/how_america_pays_2011/
- Sallie Mae. (2012). *How America pays for college*. Newark, DE: Sallie Mae.
- Scanlon, E., & Adams, D. (2008). Do assets affect well-being? Perceptions of youth in a matched savings program. *Journal of Social Service Research*, 35(1), 33–46.
- Scanlon, E., Buford, A., & Dawn, K. (2009). Matched savings accounts: A study of youths' perceptions of program and account design. *Children and Youth Services Review*, 31(6), 680–687.

- Scheier, M. F., & Carver, C. S. (1987). Dispositional optimism and physical well-being: The influence of generalized outcome expectancies on health. *Journal of Personality*, 55(2), 169–210.
- Schneider, B., & Stevenson, D. (1999). *The ambitious generation: America's teenagers, motivated but directionless*. New Haven, CT: Yale University Press.
- Schreiner, M., & Sherraden, M. (2007). *Can the poor save?* Edison, NJ: Transaction Publishers.
- Schunk, D. H., & Pajares, F. (Eds.). (2002). *The development of academic self-efficacy*. San Diego, CA: Academic Press.
- Schwartz, S. (2008). Early commitment of student financial aid: Perhaps modest improvement. In S. Baum, M. McPherson, & P. Stele (Eds.), *The effectiveness of student aid policies: What the research tells us* (pp. 117–140). New York: College Board.
- Schwartz, S., & Finnie, R. (2002). Student loans in Canada: An analysis of borrowing and repayment. *Economics of Education Review*, 21(5), 497–513.
- Scullin, M. H., & Ceci, S. J. (2001). A suggestibility scale for children. *Personality and Individual Differences*, 30(5), 843–856.
- Sen, A. (1982). Liberty as control: An appraisal. In P. A. French, T. E. Uehling Jr., & H. K. Wettstein (Eds.), *Midwest studies in Philosophy, Volume VII: Social and Political Philosophy* (pp. 207–221). Minneapolis: University of Minnesota Press.
- Sen, A. (1999). *Development as freedom*. New York: Anchor Books.
- Serido, J., Shim, S., Mishra, A., & Tang, C. (2010). Financial parenting, financial coping behaviors, and well-being of emerging adults. *Family Relations*, 59, 453–464.
- Sewell, W., & Shah, V. (1977). Socioeconomic status, intelligence, and attainment of higher education. *Sociology of Education*, 40, 1, 1–23.
- Shanahan, M. J., Vaisey, S., Erickson, L. D., & Smolen, A. (2008). Environmental contingencies and genetic propensities: Social capital, educational continuation, and dopamine receptor gene DRD2. *American Journal of Sociology*, 114(S1), S260–S286.
- Shapiro, T., Meschede, T., & Osoro, S. (2013). *The roots of the widening racial wealth gap: Explaining the black-white economic divide*. Waltham, MA: Brandeis University, Institute on Assets and Social Policy.
- Shapiro, T. M. (2004). *The hidden cost of being African American: How wealth perpetuates inequalities*. New York: Oxford University Press.
- Sherman, A. (1997). Five-year-olds' perceptions of why we go to school. *Children and Society*, 11(2), 117–127.
- Sherraden, M. (1990). Stakeholding: Notes on the theory of welfare based assets. *Social Service Review*, 64(4), 581–601.
- Sherraden, M. (1991) *Assets and the poor: A new American welfare policy*. Armonk, NY: M.E. Sharpe.
- Sherraden, M. (Ed.). (2005). *Inclusion in the American dream*. New York: Oxford University Press.
- Sherraden, M., & Stevens, J. (Eds.) (2010). *Lessons from SEED: A national demonstration of child development*

accounts. St. Louis, MO: Washington University, Center for Social Development.

- Sherraden, M., & Barr, M. (2005). Institutions and inclusion in saving policy. In N. P. Retsinas & E. S. Belsky (Eds.), *Building assets, building wealth: Creating wealth in low-income communities* (pp. 286–315). Washington, DC: Brookings Press.
- Sherraden, M. S. (2010). *Financial capability: What is it, and how can it be created?* (Working Paper No. 10-17). St. Louis, MO: Washington University, Center for Social Development.
- Sherraden, M. S. (2013). Building blocks of financial capability. In J. Birkenmaier, J. Curley, & M. Sherraden (Eds.), *Financial education and capability: Research, education, policy, and practice* (pp. 3–43). New York: Oxford University Press.
- Sherraden, M. S., Johnson, L., Elliott, W., Porterfield, S., & Rainford, W. (2007). School-based children's savings accounts for college: The I Can Save program. *Children and Youth Services Review*, 29, 294–312.
- Sherraden, M. S., Johnson, L., Guo, B., & Elliott, W. (2011). Financial capability in children: Effects of participation in a school-based financial education and savings program. *Journal of Family and Economic Issues*, 32(3), 385–399.
- Sherraden, M. S., & McBride, A. M., with S. Beverly (2010). *Striving to save: Creating policies for financial security of low-income families*. Ann Arbor, MI: University of Michigan Press.
- Sherraden, M. S., Peters, C., Wagner, K., Clancy, M., & Guo, B. (2012). Contributions of qualitative research to understanding saving theory for children and youth (CSD Working Paper 12-23). St. Louis, MO: Washington University, Center for Social Development.
- Sherraden, M. S., Peters, C., Wagner, K., Guo, B., & Clancy, M. (2013). Contributions of qualitative research to understanding savings for children and youth. *Economics of Education Review*, 32, 66–77.
- Shim, S., Barber, B. L., Card, N. A., Xiao, J. J., & Serido, J. (2010). Financial socialization of first-year college students: The roles of parents, work, and education. *Journal of Youth and Adolescence*, 39(12), 1457–1470.
- Shim, S., Xiao, J. J., Barber, B. L., & Lyons, A. C. (2009). Pathways to life success: A conceptual model of financial well-being among young adults. *Journal of Applied Developmental Psychology*, 30(6), 708–723.
- Skinner, E. A. (1996). A guide to constructs of control. *Journal of Personality and Social Psychology*, 71(3), 549–570.
- Skinner, E. A., Chapman, M., & Baltes, P. B. (1988). Control, means-ends, and agency beliefs: A new conceptualization and its measurement during childhood. *Journal of Personality and Social Psychology*, 54(1), 117–133.
- Skinner, E. A., Wellborn, J. G., & Connell, J. P. (1990). What it takes to do well in school and whether I've got it: A process model of perceived control and children's engagement and achievement in school. *Journal of Educational Psychology*, 82(1), 22–32.
- Snyder, T. D., & Dillow, S. A. (2011). *Digest of education statistics 2010* (NCES 2011-015). Washington, DC: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education.
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. In S. Leinhardt (Ed.), *Sociological Methodology 1982* (pp. 290–312). Washington DC: American Sociological Association.

- Song, H., & Elliott, W. (2011). The role of assets in improving college attainment among Hispanic immigrant youth in the U.S. *Children and Youth Services Review*, 33(11), 2160–2167.
- Song, H., & Elliott, W. (2012). The effects of parents' school savings on college expectations and Hispanic youth's four-year college attendance. *Children and Youth Services Review*, 34(9), 1845–1852.
- Sonuga-Barke, E. J. S., & Webley, P. (1993). *Children's saving: A study in development of economic behavior*. Hillsdale, NJ: Lawrence Erlbaum.
- Sorokin, P. (1959). *Social and cultural mobility*. New York: Free Press.
- Spenner, K., Buchmann, C., & Landerman, L. R. (2005). The Black-White achievement gap in the first college year: Evidence from a new longitudinal case study. *Research in Social Stratification and Mobility*, 22, 187–216.
- St. John, E. P., Musoba, G. D., Simmons, A., Chung, C-G., Schmit, J., & Peng, C-Y. J. (2004). Meeting the access challenge: An examination of Indiana's twenty-first century scholars program. *Research in Higher Education*, 45, 829–871.
- Steele, C. M. (1997). A threat in the air: How stereotypes shape intellectual identity and performance. *American Psychologist*, 52(6), 613–629.
- Steelman, L. C., Powell, B., Werum, R., & Carter, S. (2002). Reconsidering the effects of sibling configuration: Recent advances and challenges. *Annual Review of Sociology*, 28, 243–269.
- Stephens, N. M., Fryberg, S. A., Markus, H. R., Johnson, C. S., & Covarrubias, R. (2012). Unseen disadvantage: How American universities' focus on independence undermines the academic performance of first-generation college students. *Journal of Personality and Social Psychology*, 102(6), 1178–1197.
- Steuerle, E. (2010). Policy context for CDAs over the next 20 years. *Children and Youth Services Review*, 32(11), 1605–1608.
- Steuerle, E., McKernan, S.-M., Ratcliffe, C., & Zhang, S. (2013). *Lost generations? Wealth building among young Americans*. Washington, DC: Urban Institute.
- Stinebrickner, T., & Stinebrickner, R. (2012). Learning about academic ability and the college drop-out decision. *Journal of Labor Economics*, 30(4), 707–748.
- Stinebrickner, T., & Stinebrickner, R. (2013). *Academic performance and college dropout: Using longitudinal expectations data to estimate a learning model* (Working Paper No. 18945). Cambridge, MA: National Bureau of Economic Research. Retrieved from <http://www.nber.org/papers/w18945>
- Stone, C., Van Horn, C., & Zukin, C. (2012). *Chasing the American dream: Recent college graduates and the great recession*. New Brunswick, NJ: Center for Workforce Development. Retrieved from http://www.heldrich.rutgers.edu/sites/default/files/content/Chasing_American_Dream_Report.pdf
- Strauss, A. L. (1952). The development and transformation of monetary meanings in the child. *American Sociological Review*, 17(3), 275–286.
- Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research*, 45, 89–125.
- Tinto, V. (1987). *Leaving college: Rethinking the causes and cures for student attrition*. Chicago, IL: University of Chicago Press.

- Torche, F. (2011). Is a college degree still the great equalizer? Intergenerational mobility across levels in the United States. *American Journal of Sociology*, 117(3), 763–807.
- Trommsdorff, G. (1983). Future orientation and socialization. *International Journal of Psychology*, 18, 381–406. doi:10.1080/00207598308247489
- Trusty, J. (2000). High educational expectations and low achievement: Stability of educational goals across adolescence. *Journal of Educational Research*, 93, 356–395.
- Trusty, J., & Harris, M. B. C. (1999). Lost talent: Predictors of the stability of educational expectations across adolescence. *Journal of Adolescent Research*, 14(3), 359–382.
- U.S. Department of Education. (2012). *First official three-year student loan default rates published*. Retrieved from <http://www.ed.gov/news/press-releases/first-official-three-year-student-loan-default-rates-published>
- U.S. Department of Health and Human Services. 2012. *AFI Project Locator*. Washington, DC: U.S. Department of Health and Human Services and the Administration for Children & Families.
- Vaade, E. (2009). *Postsecondary opportunity programs: Defining and improving an educational policy innovation*. Madison, WI: WISCAPE.
- Votruba-Drzal, E. (2006). Economic disparities in middle childhood development: Does income matter? *Developmental Psychology*, 42(6), 1154–1167.
- Vygotsky, L. S. (1978). *Mind in society*. Cambridge, MA: Harvard University Press.
- Wallendorf, M., & Arnould, E. J. (1988). “My favorite things”: A cross-cultural inquiry into object attachment, possessiveness, and social linkage. *Journal of Consumer Research*, 14 (March), 531–547.
- Walpole, M. B. (2003). Socioeconomic status and college: How SES affects college experiences and outcomes. *The Review of Higher Education*, 27(1), 45–73.
- Ward, S., Wackman, D. B., & Wartella, E. (1977). *How children learn to buy*. London, UK: Sage.
- Warnarr, M., & Van Praag, B. (1997). How Dutch teenagers spend their money. *De Economist*, 145(3), 367–397.
- Webley, P., Burgoyne, C. B., Lea, S. E. G., & Young, B. M. (2001). *The economic psychology of everyday life*. Philadelphia, PA: Taylor and Francis.
- Webley, P., Levine, M., & Lewis, A. (1991). A study in economic psychology: Children’s saving in a play economy. *Human Relations*, 44(2), 127–146.
- Webley, P., & Nyhus, E. (2006). Parents’ influence on children’s future orientation and saving. *Journal of Economic Psychology*, 27, 140–164.
- Webley, P., & Nyhus, E. (2013). Economic socialization, saving and assets in European young adults. *Economics of Education Review*, 33, 19–30.
- Webley, P., & Plaisier, Z. (1998). Mental accounting in childhood. *Children’s Social and Economics Education*, 3(2), 55–63.
- Weiss, L. H., & Schwarz, J. C. (1996). The relationship between parenting types and older adolescents’ personality, academic achievement, adjustment, and substance use. *Child Development*, 67, 2101–2114.

- Wells, R. (2008). The effects of social and cultural capital on student persistence: Are community college more meritocratic? *Community College Review*, 36, 1, 25–46.
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge, MA: Cambridge University Press.
- Wheeler-Brooks, J., & Scanlon, E. (2009). Perceived facilitators and barriers to saving among low-income youth. *Journal of Socio-Economics*, 38(5), 757–763.
- Wigfield, A., Eccles, J. S., Yoon, K. S., Harold, R. D., Arbretton, A. J. A., Freedman-Doan, C., & Blumenfeld, P. C. (1997). Change in children's competence beliefs and subjective task values across the elementary school years: A 3-year study. *Journal of Educational Psychology*, 89(3), 451–469.
- Wildhagen, T. (2009). Why does cultural capital matter for high school academic performance? An empirical assessment of teacher-selection and self-selection mechanisms as explanations of the cultural capital effect. *The Sociological Quarterly*, 50, 173–200.
- Wilkinson, R. G. (1997). Socioeconomic determinants of health: Health inequalities: Relative or absolute material standards? *British Medical Journal*, 314, 591–595.
- Williams Shanks, T. (2005). The Homestead Act: A major asset-building policy in American history. In M. Sherraden (Ed.), *Inclusion in the American dream* (pp. 20–41). New York: Oxford University Press.
- Williams Shanks, T. (2007). The impacts of household wealth on child development. *Journal of Poverty*, 11(2), 93–116.
- Williams Shanks, T., & Destin, M. (2009). Parental expectations and educational outcomes for young African American adults: Do household assets matter? *Race and Social Problems*, 1(1), 27–35.
- Williams Shanks, T., & Robinson, C. (2013). Assets, economic opportunity and toxic stress: A framework for understanding child and educational outcomes. *Economics of Education Review*, 33(1), 154–170.
- Wilson, W. J. (1987) *The truly disadvantaged: The inner city, the underclass, and public policy*. Chicago, IL: University of Chicago Press.
- Wittgenstein, L. (1969). *On certainty*. New York: Basil Blackwell.
- Woo, J. H. (2002). Factors affecting the probability of default: Student loans in California. *Journal of Student Financial Aid*, 32(2), 5–23.
- Yeung, W. J., & Conley, D. (2008). Black-white achievement gap and family wealth. *Child Development*, 79(2), 303–324.
- Zager, R., Kim, Y., Nam, Y., Clancy, M., & Sherraden, M. (2010). *The SEED for Oklahoma Kids experiment: Initial account opening and saving* (CSD Working Paper No. 10-14). St. Louis, MO: Washington University, Center for Social Development. Retrieved from <http://csd.wustl.edu/Publications/Documents/RP10-14.pdf>
- Zhan, M. (2006). Assets, parental expectations and involvement, and children's educational performance. *Children and Youth Services Review*, 28(8), 961–975.
- Zhan, M. (2012). *The impact of youth debt on college graduation* (CSD Working Paper 12-11). St. Louis, MO: Washington University, Center for Social Development.

- Zhan, M. (2013). *Youth debt and college graduation: Differences by race/ethnicity* (CSD Working Paper No. 13-08). St. Louis, MO: Washington University, Center for Social Development.
- Zhan, M., Anderson, S. G., & Scott, J. (2006). Financial knowledge of the low-income population: Effects of a financial education program. *Journal of Sociology and Social Welfare*, 33(1), 53–74.
- Zhan, M., & Sherraden, M. (2003). Assets, expectations, and children's educational achievement in female-headed households. *The Social Service Review*, 77(2), 191–211.
- Zhan, M., & Sherraden, M. (2011a). Assets and liabilities, educational expectations, and children's college degree attainment. *Children and Youth Services Review*, 33(6), 846–854.
- Zhan, M., & Sherraden, M. (2011b). Assets and liabilities, race/ethnicity, and children's college education. *Children and Youth Services Review*, 33(11), 2168–2175.
- Zimmerman, J. M., & Moury, Y. (2009). *Savings-linked conditional cash transfers: A new policy approach to global poverty reduction*. Washington, DC: New America Foundation.
- Zogby, J. (2009). The American dream is still strong. *Forbes Magazine*. Retrieved from http://www.forbes.com/2009/01/28/american-dream-polling-opinions-columnists_0129_john_zogby.html
-

Appendices A-I can be viewed at <http://save4ed.com/appendices>.



Project supported by:

Citi Foundation



FORDFOUNDATION



Lumina[™]
FOUNDATION



CHARLES STEWART
MOTT FOUNDATION®

Assets and Education Initiative | University of Kansas School of Social Welfare
Twente Hall, Office 309 | 1545 Lilac Lane | Lawrence, KS 66044-3184
785-864-2283 | www.aedi.ku.edu | www.Save4Ed.com